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City of Bombay.

Municipal Retrenchment and Reform.

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FINAL REPORT

BY THE

RETRENCHMENT ADVISER.

Cx. d. 18

BOMBAY.
FEBRUARY, 1925.

PREFATORY NOTE

This compilation contains the specific proposals for retrenchment and control of loan works expenditure, submitted by the Retrenchment Adviser with the help of the Officers associated with him, during the six months ending 31st January 1925. It also includes certain schemes of reform developed simultaneously. It will be seen that the greater part of the work outlined in the original programme (approved in Corporation Resolution No. 4042 dated 17th July 1924) which the Retrenchment Enquiry Staff was in a position to handle, has been completed.

As time and establishment did not permit of his preparing any more detailed schemes the Retrenchment Adviser has endeavoured to submit, as a result of his local studies, a general review of the wants of the City and its administration in their true perspective in the hope that it may be of some value to the Corporation prosecuting the further investigations necessary.

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MR. N. D. MEHTA, B.A., (District Deputy Collector, Northern Division, Bombay Presidency).

Secretary :—

MR. T. H. BIRD, Chartered Secretary, (Test Audit Officer, Bombay Municipality).

CONTENTS.

PAGES.

CHAPTER I—INTRODUCTORY 1-5

Origin of the Enquiry—Loans and Loan Charges—Reforms—Programme of work—Acknowledgments.

Part I. Lines of Future Development.

CHAPTER II.—THE NEW MOVEMENT—A MUNICIPAL RESEARCH BUREAU FOR BOMBAY CITY .. 8-10

Recent developments—Two kinds of municipal research agencies—A municipal research bureau for Bombay City—General objects and specific functions of the bureau.

CHAPTER III.—THE CITY'S ECONOMIC NEEDS 11-14

Housing—Cheap transit—Reducing the cost of living—Aiding industry and trade.

CHAPTER IV.—TRAINING OF THE CITIZENS 15-18

Education—Civic training and civic associations—An institute of municipal research—Libraries.

CHAPTER V.—PUBLIC WORKS, UTILITIES AND RECREATIONS 19-23

Public works—Public utilities—Public health and recreations.

CHAPTER VI.—GREATER BOMBAY 24-29

Suburban extensions—City planning—Zoning—Ward amenities—The City's special problems—Three development agencies—Central development board.

CHAPTER VII.—SUMMARY OF RECOMMENDATIONS .. 30-32

Object of changes—Recommendations.

Part II. Work Done and Proposals Submitted.

CHAPTER VIII.—PROGRESS OF THE RETRENCHMENT ENQUIRY 34-40

Preliminary report—Resolution of the Corporation—Staff and budget grants—Programme of work—Administrative reforms—Retrenchment proposals—Other proposals—Continuation of enquiry.

CHAPTER IX.—ADMINISTRATIVE REFORMS 41-51

(*i*) *Note by Retrenchment Adviser,*—Main proposals—Aim of proposals—Functions and powers of executive committees—Functions of the Municipal Executive—Proper grading of work and responsibility—Action necessary.

(*ii*) *Report by Mr. R. P. Masani.*

CHAPTER X.—RE-ORGANIZATION OF ENGINEERING DEPARTMENTS. 52-70

Previous history and growth—Existing organization—Reasons for change—Proposed re-organization—Distribution of expenditure—Distribution of staff—Supervision by a Chief Engineer—Division of City into two districts for roads and buildings—Re-distribution of certain specific services—How to deal with existing special divisions : Future City planning and improvements division—Improvements in ward administration—System of accounts—Office equipment and efficiency—Engineering advisory council—Summary.

CHAPTER XI.—CONTROL OF LOAN WORKS EXPENDITURE 71-86

Debt and debt charges at present time—The problem stated—Works in progress or proposed—Three classes of loan works—Expenditure for next six years—Alternative proposals—Assumptions in preparing forecasts—Indebtedness compared—Security behind debt—Commercial aspect of loan works—Other uses for loan money—A loan works programme—Recommendations—Subsidiary suggestions.

APPENDICES.

		PAGES.
I	Programme of the Enquiry	88
	Reports by Retrenchment Officers :—	
II	Executive Engineer—General Branch. ..	90
III	„ „ Buildings „	92
IV	„ „ Kurla-Deonar Railway ..	95
V	„ „ Repairs Section.	96
VI	„ „ Municipal Buildings ..	97
VII	Roads Branch	98
VIII	Drainage Department	101
IX	Water Works „	104
X	Mechanical „	106
XI	Public Health „	108
XII	Hospitals and Medical Relief	116
XIII	Conservancy Department	124
XIV	„ „ (Transport)	144
XV	Markets and Slaughter Houses Department ..	154
XVI	Fire Brigade	158
XVII	Victoria and Albert Museum	160

TABLES.

		PAGES.
I	Summary of Revenue Expenditure for 12 years ending 1924-25 :—	
	(*a*) Abstract	162
	(*b*) Administrative Departments	163
	(*c*) Revenue ,, ...	164
	(*d*) Engineering ,, ...	165
	(*e*) Public Health ,, ...	168
	(*f*) Education ,, ...	170
	(*g*) Special ,, ...	171
	(*h*) Fixed and Special charges	172
	(*i*) Debt charges	173
	(*j*) Miscellaneous ..	174
II	Capital Expenditure for 13 years ending 1925-26 ..	175
III	Distribution of Permanent Engineering Staff ..	177
IV	Distribution of Expenditure under Loan Works for 7 years 1924-25 to 1930-31 proposed by Special Engineer, Development Works. ..	178
V	Future Capital Expenditure on	
	(*a*) Liberal Scale	180
	(*b*) Moderate Scale	181
	(*c*) Restricted Scale	182
VI	Debt and Loan Charges compared with Income and Borrowing powers	184
VII	(*a*) Details of Budget Estimates for 1925-26 and Retrenchments approved.	186
	(*b*) Abstract of Estimates and Retrenchments by main service heads	191
	(*c*) Abstract of Estimates and Retrenchments by Departments ,, .. ,,	192

City of Bombay.

MUNICIPAL RETRENCHMENT & REFORM.

CHAPTER I.

Introductory.

Origin of the Enquiry.

The origin of the present Retrenchment Enquiry is fully explained in the Preliminary Report on Municipal Retrenchment and Reform submitted to the Corporation in June 1924. A few salient points may be recapitulated here in that connection. In the boom period immediately following the war, the commercial prospects of the City, for a time, appeared particularly rosy, property values rose high and the Municipal revenues showed a sudden expansion. It was at such a time that the Corporation started large schemes of development and expansion, and sanctioned funds and establishment on a liberal scale for the execution of the schemes. But when the tide turned and trade depression set in about the years 1922 and 1923, when it was seen that the Municipal income was falling, while the expenditure continued to increase, the thoughts of the Corporation turned towards retrenchment and reform. It was about this time that an organized attempt was being made to effect savings in the national expenditure of Great Britain. The Government of India subjected their own departments to the retrenchment axe of the Lord Inchcape Committee. Several Provincial Governments adopted similar measures. The Bombay Municipal Corporation also followed their example and appointed a Retrenchment Committee, which invited the present writer to assist them in the practical work of retrenchment. The Municipal Commissioner, in a letter which he addressed me on 28th January, 1924, said :

"The Corporation have decided to investigate the system of administration now in force throughout the various departments of the Corporation and to suggest possible means of securing greater efficiency and economy.....Our Engineering Departments are particularly large and your qualifications in that direction would render your advice.....valuable. How far

there is scope for retrenchment in higher branches is questionable but I have no doubt that various means could be devised by economies in certain directions."

2. After discussions in the Retrenchment Committee, it was agreed that I should make a preliminary study of the affairs of the Corporation and submit concrete proposals to indicate the lines of enquiry for the consideration of the Committee. A report was submitted on the 25th June, 1924, and on the 17th July following, the Corporation approved, practically in their entirety, the programme of retrenchment and reform outlined for adoption. These measures are enumerated in statement form in Appendix I.

3. The chief problems before the Retrenchment Committee were how to reduce the overgrown Municipal expenditure and what limitations to place on the rapidly growing Municipal debt. An analysis of the budget for 1924-25 showed that, while the total revenue expenditure was Rs. 310.92 lakhs, the loan charges debited to revenue, including the contribution to the City Improvement Trust, amounted to Rs. 132.83 lakhs. The departments in which any appreciable savings were possible were considered separately and their total expenditure was found to be only Rs. 134.54 lakhs. For reasons given in my Preliminary Report, few of the remaining departments could be subjected to retrenchment, at least in the first stage of the enquiry, without very close scrutiny of its effects on the efficiency of those departments. Of the sum of Rs. 134.54 lakhs just mentioned, in which savings were considered possible, Rs. 62.02 lakhs represented the outlay in the Engineering Departments. This outlay has grown to the present dimensions from less than Rs. 30 lakhs in 1913-14, i. e., 11 years previously. Another large item was Rs. 51·78 lakhs in the Health Department which 11 years before was spending less than Rs. 23 lakhs. It is in such overgrown departments that the retrenchments have been effected. I had estimated (*vide* paragraph 24 of the Preliminary Report) that a saving of Rs. 12 to Rs. 15 lakhs might be possible on a total outlay of Rs. 134.54 lakhs, or roughly 10 per cent. So far, savings to the extent of Rs. 11.23 lakhs or about 8 per cent have been effected, and proposals for further savings are under way. This work will be continued by the present Retrenchment Staff.

Loans and Loan Charges.

4. The expenditure on capital works in recent years has been very rapid. Till 1920-21 the yearly capital outlay on new works in no year exceeded Rs. 75 lakhs. In subsequent years it has grown as under :—

		Rs. Crores.
1921-22	..	0.75
1922-23	..	2.29
1923-24	..	3.20
1924-25 (Budget).	..	3.59

The loan charges proper, which in 1919-20 amounted to Rs. 43·44 lakhs, rose to Rs. 110.23 lakhs in 1924-25, an increase of 155 per cent. The question of limiting the Capital expenditure in future is dealt with in a special report which is reproduced as Chapter XI in Part II of this compilation. The Retrenchment Advisory Committee have approved of one of the alternative schemes put forward, together with the subsidiary rules and principles enunciated for regulating the loan works expenditure in future.

If business conditions remain steady and the Corporation adhere to the programme and procedure recommended, the future loan works expenditure will be brought under stricter control and the financial position rendered safe.

Reforms.

5. Turning to the question of reforms it may be remarked at the outset that with the increase of population and growth of revenue, and the altered conditions of City life, reasonable changes in the methods of administration are necessary. To this end two essential reforms have been recommended, namely,

(1) The decentralization of functions and allocation of some specific duties to heads of departments or groups of departments and (2) the appointment of Executive Committees on the English model to control the details of departmental administration in conjunction with the departmental heads.

It is suggested that Government be moved to take early action in the matter of the statutory sanction needed to the proposals which are explained in detail in Chapter IX.

At present the Municipal Corporation on the one side and the departments of the Municipality on the other, work in separate watertight compartments. Their points of view are often not the same and the City's business suffers on this account. It would do much good if, as in English City Corporations, the Councillors and the Municipal Executive are brought into direct contact with one another and with the day-to-day problems and functions of Municipal Government.

6. Another important proposal submitted is a scheme of re-organization for the Engineering Departments reproduced in Chapter X which has received the approval of the Retrenchment Advisory Committee. These departments were investigated and reported upon because the Municipal Commissioner had specially drawn my attention to them and also because they are the largest spending departments. Including loan charges, the Engineering Departments are in a manner responsible for nearly 60 per cent of the yearly expenditure. The total outlay in these departments will be a great deal more if the capital expenditure is also taken into account.

Programme of Work.

7. A perusal of the programme of work sanctioned by the Corporation (Appendix I) will show that, out of the amount of work the Retrenchment staff was in a position to handle, more than three-fourths is completed. Some items on the programme have been taken up by the Municipal Commissioner, and some heavy items, such as the preparation of lists of Municipal properties, departmental codes and manuals, Municipal Year Book, etc., will perhaps require the employment of a special staff to complete them. As was remarked by me in a letter to the Municipal Commissioner on the 6th November, 1924, to give full effect to a programme of this character is a task not of months but of years, depending on the strength of the official staff employed and the extent of co-operation which the Municipal officers may be able to give in the midst of their exacting duties.

8. As the six months during which I had agreed to look after this work are now over I am submitting this final report—final so far as it relates to my work in the Municipality—in which I have endeavoured to recapitulate what has been done up to the present, how much more yet remains to be done and what further

measures are necessary to promote efficiency in municipal administration and the orderly growth of the City.

Perhaps to remove any misapprehension, it may be mentioned here that when I took up this engagement for six months, my understanding with the Municipal Authorities was that the principal work to be done was retrenchment, that my whole time was not available, but that I could give about ten days in a month exclusively to Municipal work. Owing to the novel character of the work that had to be done and the inadequate staff, I have had to devote much more of my time than I either intended or promised.

Acknowledgments.

9. I am indebted to Mr. V. J. Patel, M.L.A. President of the Corporation and the Members of the Retrenchment Advisory Committee for their various constructive suggestions and the patient hearing they gave to the proposals placed before them.

My special acknowledgments are due to Mr. H. B. Clayton, C.I.E., the Municipal Commissioner, for the practical help received from him in many ways. He materially lightened the labours of the Retrenchment Officers and myself by his uniform courtesy and geniality in settling, in a reasonable spirit, many disagreeable items of Municipal retrenchment.

I also wish to thank the Heads of the Municipal Departments for their co-operation, more particularly Mr. J. W. Mackison, C.I.E., the Special Engineer, Mr. R. P. Masani, M.A., the late Deputy Commissioner, Mr. T. K. Roddan, the Executive Engineer, and Mr. M. R. Tambe, the Chief Accountant.

Mr. N. D. Mehta, the Retrenchment Officer, joined the staff late, but he got on rapidly with his work, being a clear headed worker with a rare capacity to grasp quickly the essentials of a question.

Mr. T. H. Bird, the Secretary, has borne the brunt of the work and I desire to record my high appreciation of his services in this connection. His close knowledge of the Municipal Departments as Test Audit Officer and his past experience of the account work of English Municipalities were of great value. He has shown special ability and devotion and rendered very valuable assistance throughout the investigations.

PART I

LINES OF FUTURE DEVELOPMENT

CHAPTER II.

THE NEW MOVEMENT—A MUNICIPAL RESEARCH BUREAU FOR BOMBAY CITY.

Recent Developments.

10. In recent years there has grown up, principally in America and Canada, a new movement which provides for a periodical or continuous survey of City affairs and administrations. One form of Civic Survey is that conducted by an expert in city administration who studies the conditions and requirements of a city, analyses its deficiencies, and suggests how wants might be met, and improvements and developments undertaken. Another form of survey is that conducted by civic agencies or associations which carry on continuous investigation into a city's affairs and constantly or periodically offer suggestions and proposals leading to improvement and reform. The object of both forms is to maintain a high standard of efficiency and purity, and a correct sense of proportion in the expenditure and activities of the city administration.

In England, discussions for advancing municipal and social problems are constantly going on and Government Departments maintain officials whose duty it is to aid and advise local authorities. The various classes of municipal authorities combine in the form of national associations and by means of literature and conferences strive to keep their several problems to the forefront. The views of these authorities find expression in Parliament whenever any legislation concerning their activities is moved. Until similar agencies and measures come into existence in Bombay, it is necessary for the Municipal Corporation to endeavour to provide their own machinery for dealing with many of the City's problems which press for solution. Every important problem should be kept under discussion and investigation and as many minds as possible brought to bear on the task.

Two kinds of Municipal Research Agencies.

11. In Western Cities, particularly in the United States of America, two kinds of municipal research agencies have come into existence, one supported by the funds of the city and forming a bureau of municipal administration

and another a sort of civic association or institute of municipal research maintained independently of the city authorities. The latter, or what may be termed an external agency, is referred to at a later stage.

A Municipal Research Bureau for Bombay City.

12. The recent measures of retrenchment and reform in the City of Bombay are of the nature of a municipal research effort, although a very imperfect one. The prosecution of the measures already sanctioned to a successful conclusion is highly desirable and if further reforms or savings are to be effected, the enquiry should be resolutely pursued. Many American cities have made rapid progress as a result of the labours of such research agencies and it is therefore suggested that the present Retrenchment Enquiry office be transformed into a permanent municipal research bureau for Bombay City, the new bureau working in alliance with, but independent of, the Municipal Executive.

The staff of the Bureau may consist of two officers and two or three picked young officials who have had professional training in municipal finance, administration, etc., with the necessary clerical assistance The total annual expenditure, including salaries, office expenses and experts' fees may amount to Rs. 40,000 or 50,000. If the Corporation wish to satisfy themselves of the real efficacy of the new Bureau before spending on it, a start may be made with a yearly grant of Rs. 30,000 only. If its business is properly conducted, the expenditure on the Bureau would be repaid many times over by the resulting savings in expenditure and increase of efficiency.

The new Bureau would work in close alliance with the City Planning section of the Engineering Departments, the administrative and account sections of the City administration and in a lesser degree with all forms of municipal endeavour. If any high officials of the Corporation co-operate and work out new proposals in collaboration with the new Research Bureau, they should be encouraged and, whenever possible, rewarded for such services.

General Objects and Specific Functions of Bureau.

13. The Bureau will work for the efficiency of the services, improvement of the revenues, economy of expenditure and reduction of the tax rate.

Stated in detail, the principal functions of a research bureau will be somewhat like the following:—

(1) Collecting and compiling statistics of City life and City administration;

(2) Collecting for comparison up-to-date information concerning the methods of administration and developments adopted in progressive foreign city administrations like those of Birmingham, Glasgow, Toronto and Tokyo;

(3) Standardizing the practices and methods of administration in the various departments by the preparation of suitable rules, manuals or codes;

(4) Maintaining an up-to-date library of municipal reports and publications issued by the more progressive foreign city administrations;

(5) Study of the Budget and of avenues of retrenchment and reform in municipal administration and services;

(6) Preparing and publishing authoritative official information for the use of city officials and citizens;

(7) Stimulating interest in City affairs by spreading among the citizens useful information concerning the same in a succinct and understandable form; and

(8) Assisting the Corporation in the solution of special municipal problems, with the aid of experts as required from time to time.

CHAPTER III.

THE CITY'S ECONOMIC NEEDS.

14. There are many questions of interest to the City in connection with its economic welfare which require special attention. Only the more salient among them will be referred to here.

Housing.

15. The statistics given in para 13 of the Preliminary Report indicate that the average density of population in the Island is 81, and the maximum density as high as 737 per acre. If this great congestion is to be relieved, the present population should be diffused over as large an area as possible. As the low level areas in the northern part of the City require much expense to reclaim before they are rendered fit for building, the most natural expansion of the City will be in the direction of the suburbs.

The buildings demolished by the City Improvement Trust were of all types, but by reason of the nature of the localities, were mainly occupied by people of the poorer classes. It is stated that the Trust have not erected as many buildings as they have demolished. The new buildings, however, contain more accommodation than the old ones did, though the former are of a better quality and fit for residents of a higher social class. In addition, the Trust are helping to provide plots for all people who wish to build, and a great deal of building work is going on in the areas opened up by them.

The Bombay Development Directorate are concentrating attention on building one-room tenements and by June next they will have brought into existence about 9,000 single room tenements, all within the Island, capable of accommodating more than 45,000 persons. In the suburbs again about 325 acres of land have been laid out for residential purposes, which, when built upon, are expected to accommodate 20,000 persons more. The development work is being done in five places, each of which forms a nucleus for future expansion. Some of these lands can be had for from Rs. 3 to Rs. 6-8-0 per square yard, per plot, varying in size from 700 to

1,000 yards and houses can be built on one-fourth of the plot at a cost ranging from Rs. 4,500 to Rs. 10,000 each. In all their suburban areas, the Development Directorate give loans equivalent to three-fourths of the cost of the land and half the cost of the building, recoverable within five to fifteen years with interest at 6 per cent per annum. If the purchasers of plots do not desire to have an advance towards the cost of the building, they have to pay off the balance of purchase price of the land at 7 per cent interest within three years by six half yearly instalments.

The progress in house-building, both in the City and the suburbs, is on the whole very slow and relief can come only if an extensive programme is adopted and building encouraged by liberal concessions to private builders, co-operative societies, contractors, etc. The real condition of the housing shortage will be understood only if a proper housing survey is carried out as a preliminary to the preparation of a programme.

Cheap Transit.

16. Closely allied to housing is the question of cheap transit. The configuration of the City, which requires that all the traffic should pass through the bottle neck of its northern outlet, makes rapid transit facilities a paramount necessity. It is understood that the two railway systems are about to provide electrically operated lines to serve the suburbs. It is said that when the electrification is completed, these railways will have a capacity to carry about three times as much suburban traffic as they do at present. The Railway Companies have not yet decided to lower the fares, and, it is understood, are not inclined to do so without some actual experience of electrical working. The project of underground railways suggested by the Special Engineer, Development Works, is not likely to materialise within any reasonable time on account of its heavy cost. The question of overhead railways which will have other disadvantages, has not yet been mooted. The extension of tramways to the suburbs will give some relief but that is contingent on the roads being widened first. Some expansion of the tramways system, or the association of a fast motor bus service with it, is necessary to land the passengers reasonably near to their places of business and residence.

Till a solution is found which may be deemed satisfactory, it seems necessary for the Government, the City Corporation and the

Railways, each to contribute a share of the cost in order to give relief to the travelling public in the suburbs, especially the poorer and the lower middle classes. A portion of the proceeds of the cotton cess and the town duties might be fittingly set aside to meet this public want. According to published reports, the City of New York is subsidizing the railways which carry its suburban traffic under somewhat similar conditions, but on a vastly more extensive scale, to the extent of about Rs. 3 crores a year.

Reducing the Cost of Living.

17. Urban life by its very nature tends to increase the cost of living. Open spaces are crowded out and the transport cost of food stuffs is increased. Housing is a costly item and the town duties add at the rate of about Rs. 2 per head per annum to the cost of food supply. On account of malaria and other unhealthy conditions, the amount spent on medical help also bulks large in the poor man's budget. Living in the suburbs is not less costly. Many of the commodities in demand have to be carried from Bombay, there being no large depots for storing goods in Salsette. The public should be protected against exorbitant prices as far as possible. The Corporation can do something towards solving the problem by assisting in the improvement of transport facilities and increasing the means of distribution through its markets.

The problem of reducing the cost of living is one of great complexity and high prices are the result of economic causes, many of which are beyond the control of individuals or authorities. This subject requires close investigation in order to bring relief, particularly to the poorer classes of inhabitants.

Aiding Industry and Trade.

18. Industry, trade and city life go together and if the people are to be enabled to earn more, and the City is to be prosperous, its industrial conditions should be under constant study and undergoing improvement, and when opportunities present themselves new industries should be invited to the neighbourhood. At the present time there should be some agency also brought into existence to study the question of unemployment. It is understood that certain areas on the outskirts of the City, and in the suburbs of Kurla and Trombay, are reserved for industrial purposes and that all large industries will in future be located in the suburb of Amber-

nath, where the Development Directorate are providing reasonable facilities. There is sufficient water supply, and abundant electric power will soon be available. The chief desideratum now is the lack of reasonable facilities for workmen to live under healthy conditions. It is said that Indian labour is expensive because it is inefficient. It is inefficient because it is ill-fed and badly housed.

This question of aids to industries requires special watching and investigation. It may be necessary to provide another new industrial suburb in a northerly direction beyond Bandra. In Western countries, wealth producing activities are specially stimulated by City administrations, by affording all facilities, such as housing for workmen, technical and commercial education, liberal exemption from taxes in the case of new manufacturing plants and in many other ways. Industrial exhibitions are often organized. The establishment of new industries is encouraged on account of the prosperity they bring with them. The Bombay Municipal Corporation are not at present rendering any appreciable help to industries within municipal limits. With industries outside the limits they have no concern whatsoever.

CHAPTER IV.

TRAINING OF THE CITIZENS.

Education.

19. The position of elementary education in the Bombay City does not seem satisfactory ; it compares most unfavourably with that of similarly situated cities in the West. The Census of 1921 puts the total number of children of school age at 1,20,000. The latest figures in this connection are not available. In 1923-24 about 62,579 children are reported to have been attending schools primary, middle and private. Roughly speaking, therefore, nearly one half are attending the schools and the other half of the future citizens of Bombay are growing up in ignorance. Free primary education is not yet introduced nor is elementary education made compulsory so far. There is no provision worth mentioning for the lower vocational,industrial,trade and commercial schools, nor for training children in the rudiments of hygiene or elements of community civics. No provision seems to be made for training girls and women in domestic economy or in subjects which would help to brighten home life. Save for the fact that the Corporation annually contribute Rs. 9,200 for the deaf and dumb mutes and for the blind, the education of the physically and mentally weak and defectives is receiving scant encouragement.

There is thus a great leeway to make up. The first need is to enforce compulsion in all the wards of the City as early as possible and to make primary education free throughout the City. The second need is to increase rapidly the number of school buildings under the control of the Municipality and equip them with suitable play grounds and gymnasia. Both from an economic and social point of view, these structures should be put to a wider use. For it has been urged in this connection " that it is folly for a community to erect a costly school building and use it only four or five hours a day, when, with a little added expense, the same could be profitably used for ten or twelve hours." It would be a farsighted policy for the Corporation to reserve sites for new school houses in the areas which are being developed and opened up.

The Education Committee might issue pamphlets to awaken the conscience of the citizens to the grave needs and deficiencies in the department of education.

The education of the mass of the people in the elementary rules of sanitation and public health should be encouraged and every aid given to the unofficial agencies, which are doing good, though perhaps limited, work in this direction.

20. Since Bombay owes much of its prosperity, and the Municipal Corporation the bulk of their revenues, to the presence of flourishing industries in their midst, the Corporation should help industrial enterprises to the best of their opportunities. Adequate provision should be made for the maintenance of technical, commercial, vocational and industrial institutions so necessary for the future commercial prosperity of the City. If the Municipal Corporation depute an official to study and report on the amount of educational activities maintained in cities like Manchester, the information gathered will act as an eye-opener to our citizens. Both the Government and the Corporation might co-operate in meeting in a liberal spirit the clamant educational needs of the City.

Civic Training and Civic Associations.

21. At present the City's activities are not placed before the public at large in a clear direct form. The citizens may be said to be the stock-holders of the City Corporation and the affairs of the City will be conducted satisfactorily if an enlightened and forceful public opinion stands behind the Executive engaged in the daily work of administration and development. The public have no definite information upon the policies, methods and activities of the municipal administration, except what is derived from unwieldy administrative reports or the day-to-day newspaper reports and comments on the meetings of the Corporation and the Standing Committee.

Education in civic affairs is neglected and there is no active propaganda. In these circumstances, it is idle to hope that sound public opinion can crystallise on matters of current administration or on large municipal problems.

In the early part of the present century it was common to find, in most European and American Cities, what were known as

"Ratepayers Associations." These unofficial bodies, however, rarely produced criticism of a useful character, and where public spirit was strong, they gradually developed into municipal research bureaus, financed by private funds. These bodies have had a phenomenal growth in America where there is now hardly a city of importance that has not got its bureau of municipal research.

There are several unofficial agencies in this City, such as the Municipal Reform Association and the Social Service League, which concern themselves with matters of City Administration. There is also a large body of intelligent citizens who, if their efforts were co-ordinated in a business working organization formed on the lines of an Institute of Municipal Research, would be able to offer valuable advice and suggestions to the governing bodies of the City. There is reason to believe that such an organization would meet with every assistance, not only from the members of the Corporation and other bodies, but from the officials of the City as well.

There may be two classes of associations (1) Central for the whole City and (2) Sectional for wards. Associations may be formed for any object of civic interest and such associations may be known each according to its distinctive sphere of work.

The Corporation may arrange to issue brief reports of their work in a form to be intelligible to the ordinary citizen. The citizens might press their wants on the attention of the Corporation through their associations. The obvious reason why citizens are not better served in regard to their wants is the absence of large-scale co-operation and lack of interest in Municipal Government on their part.

An Institute of Municipal Research.

22. The need of an external municipal research agency is referred to in paragraph 2, Chapter II. It should be a purely non-official organization supported entirely by private funds. Being independent of official control, it ought to make a searching investigation of municipal affairs and the City's future development and criticize proposals in a frank and unbiassed manner. If the work is done in the right spirit, it would be materially supplementing the activities of the Internal Municipal Research Bureau.

The main functions of such a Bureau would be :—

(1) To collect material regarding the City administration and to analyse its reports, etc., for the information of the public.

(2) To study foreign conditions and see how far they afford lessons to the City,

(3) To act as an educative force, placing its digested knowledge before the public in a brief and understandable form, and

(4) To carry on general propaganda work.

It is for the citizens of Bombay to consider whether they cannot start an institute of the kind and endow it, and place it on a permanent footing. Many advanced cities have bureaus of this kind ; Boston has one and Tokyo has one. The City of New York, which has been the pioneer in this direction, has a bureau of this sort, and so useful has been the work done by it that various cities in other parts of the world have asked its aid to have their affairs investigated by its experts.

The Calcutta Municipal Corporation have started a journal relating to municipal affairs. Bombay may follow their example.

Libraries.

23. It is understood that the Corporation have provided in the Budget for the next year, a sum of Rs. 25,100 for establishing and maintaining free reading rooms and libraries. There is need for a Central Library which should also be a reference library, if possible, and every ward should have a branch library. The reference section of the Central Library should be as complete as possible and abound in information of value to the citizens in their daily avocations. To meet the City's wants in this respect the Corporation might set apart a reasonable sum every year, appoint a special committee, engage an expert and associate with him two or three local men as assistants till a proper library organization is brought into existence. For raising new buildings, particularly for ward libraries, it may be possible to obtain contributions or bequests from philanthropic citizens.

CHAPTER V.

PUBLIC WORKS, UTILITIES AND RECREATIONS.

Public Works.

24. Of late years the Corporation have made great efforts to bring the roads up to a high standard. Each development project recently undertaken is in reality a separate road project. Roads are being extended rapidly in all parts of the Island, and more of them are being surfaced with asphalt or tar macadam. The extensive use of road mechanical transport has made further improvement of the roads imperative, and that the Corporation realized this is clearly shown by the liberal manner in which, in recent years, they have sanctioned grants for this purpose.

The total revenue and capital expenditure on road maintenance and improvements was :—

In 1913-14	..Rs.	19.16 lakhs.
„ 1920-21	.. „	31.56 „
„ 1921-22	.. „	40.60 „
„ 1922-23	.. „	59.40 „
„ 1923-24	.. „	49.40 „
and the budget provision made for the current year is	„	81.02 „

There is still much room for improvement. Some efforts seem necessary to provide more cross roads west to east and circular roads round the City, or sections of the City, wherever possible.

It is suggested that the new City Planning section of the City Engineer's department, when started, be first put on this work of preparing a comprehensive plan of communications for the whole Island, showing what roads should be brought into existence and what the state of the communications generally should be in about 25 years from now.

If such an advance plan were prepared, discussed, and approved by the Corporation after inviting public criticism, it would form a very useful guide for future City development. All further development and road schemes could then be made to fit in with the general plan and form part of one connected whole.

In sanctioning the construction of new buildings regard should be had to the architectural features of existing buildings in the locality. The construction of new buildings, both public and private, should be controlled and every endeavour made to beautify the City by insisting upon the buildings being of appropriate design and in harmony with the surroundings.

25. The water supply of the City will soon be reinforced by the extra quantity which will be brought into it when the new Tansa triplication main is completed. The present daily supply is 50 million gallons. It is anticipated that by July or August of this year the new mains will make at once some small addition to the City supply, though the full benefit of the scheme will not be realised until early in 1926. When the extension work in progress is all completed the quantity delivered daily will be over 100 million gallons, enabling a constant supply to be given in place of the present intermittent supply in various parts of the City. As to how long this increased supply will meet the needs of the City will depend upon the rate of the future increase of the population. In order to be prepared to meet further demands when they arise, preliminary surveys have been made, and an outline of a scheme drawn up, for turning the waters of the Vaitarna River into the Tansa Lake. Thanks to the special measures taken in this respect, there is no fear that Bombay will suffer from any appreciable shortage of its water supply for many years to come.

26. The problem of how best to deal with the drainage and sewerage of the City has been engaging the attention of the Corporation and the Municipal Executive. The advice of experts has been obtained and alternative schemes have been put forward. The main point is to come to a rapid decision whether there should be only one main outfall at Worli or whether the Island should be divided into three drainage districts, each with its own separate outfall. The latest estimates of the cost of the schemes on the latter basis are put down at Rs. 2 crores for sewage outfalls, and Rs. 1 crore for the main storm water channels and the pumping plant. The non-settlement of this question is interfering with the progress of sewer construction in all parts of the City, particularly in areas under development in the northern part of the Island.

Public Utilities.

27. In paragraph 11 of the Preliminary Report, the public utility services of the City have been briefly described. With the exception of the water supply these services are all in the hands of private companies.

To the growth and planning of the City, water, gas, electric supply, and tramways have a vital relation. So important are they to the communal life of large towns, that in most of the western countries a great majority of the municipalities own and operate them. Utility services being generally monopolies and not subject to competition, they should, as far as possible, be under the strict control of the City Corporation.

In respect of the supply of electricity for lighting and small power consumption, and the electric tramways, the Corporation have made arrangements with the Bombay Electric Supply & Tramways Co., Ltd., which cover all or most of the usual safeguards.

The supply of electricity in bulk to large power consumers by the Tata Hydro Electric and associated companies, is not yet subjected to any restrictions or safeguards on the part of the Corporation.

The gas supply is in the hands of the Bombay Gas Co., Ltd., and there does not appear to be any adequate control exercised over it by the Corporation or any department of the Municipality. Every Gas Company in England is compelled by law to supply gas of a specified calorific value, and is subjected to inspection and control by the local authority and the Board of Trade. Bombay Act V of 1863, which confers certain powers upon the Bombay Gas Co., Ltd., does not place any obligatory duties or standards upon the Company. In effect the Company have an unrestricted monopoly. This is not to the advantage of the City, and the Corporation ought to consider what action is required to safeguard adequately the interests of the City with regard to its gas supply.

If the recommendations in Chapter X are accepted, the Chief Engineer will be responsible for the proper working of the company-owned public utilities in future.

The creation of a Public Utility Department in the City Government, composed of three men, a chief and two assistants, was

recently recommended for the City of Tokyo. " This Department," said Mr. Charles A. Beard, who made the recommendation," should be composed of experts in the field of utilities. It should have the power to regulate the rates and services of utility companies operating within the City (subject to the terms of franchise) to compel the publicity of accounts,to establish and enforce certain standards of service, and hear the complaints made by citizens and the City against the companies for non-performance of duty."

Public Health and Recreations.

28. In the direction of prevention of disease, the Corporation have taken some substantial steps on the right lines ; maternity homes, local dispensaries, sanatoria for tuberculosis diseases, treatment of poor persons in their homes, being some of the activities of the Health Department which have been encouraged recently. When the finances of the Corporation are in a sounder condition, the Corporation will doubtless give further consideration to an extension of this side of public and social welfare work ; for it is by active preventive measures only that a material reduction in the death rate, particularly of infants, is possible.

No one function is exclusive, for public health measures include housing, drainage, transportation, refuse removal, recreation, etc. Most of these problems are dealt with elsewhere in this Report, and what is stressed now is the intimate relation which parks, open spaces, and recreation grounds have to the health and earning power of the population.

29. There is, as explained in the Preliminary Report, a great need for parks and parkways and play-grounds in the City, particularly in the more congested areas.

Of the total area of the City, viz., 15,065 acres, only 246 acres or 1.6 per cent. are devoted to public gardens. There is a striking lack of small parks, local breathing places and play-grounds in the centre and northern part of the City. There are many crowded areas where there are no public open spaces at all.

The provision of spaces and apparatus for certain kinds of games, such as tennis, in some of the parks is a recognised feature of Western Cities, and a substantial income is derived therefrom which helps to reduce the cost of maintenance falling upon the local taxes.

The ideal state of affairs is a park or play-ground within easy walking distance for every family. In practice this means that from five to ten per cent of the total area of the City should be set aside for parks and play-grounds, and there should be a public open space within one quarter of a mile of every home.

Some cities have parks or miniature forests owned by them outside the City limits to provide week-end recreation to their residents. The recreation facilities may include municipal theatres and swimming baths.

CHAPTER VI.

GREATER BOMBAY.

Suburban Extensions.

30. As already remarked while considering transit facilities to the suburbs, Bombay is very inconveniently situated for suburban expansion for two reasons. One is that it has only one outlet towards the north, and access to the mainland is restricted by a few railway and road bridges in that direction. At present, the almost continuous wall of buildings from north to south imposes a barrier to the free circulation of sea breeze, and this in a City where the temperature is abnormally high throughout the year is injurious to the general health of the population. The provision of cross roads west to east will give relief in this respect. Within the City, communications from north to south are fairly easy but across the Island, that is, west to east, they are rendered difficult by the two railways which are taken at the ground level through densely populated areas. In other populous cities like London, New York, Berlin or Tokyo, some of these railways are taken either underground or overhead but to attempt a change now in this respect in the circumstances of Bombay is a costly matter.

All the development work in the suburbs is at present in charge of the Government Development Directorate who plan the extension, lay on water and grant liberal terms for intending house builders. The Municipal Corporation of Bombay have sanctioned a proposal for the supply of over 2¼ million gallons of water per day, at a concession rate, for use in the suburbs and this is being distributed by the Development Directorate and other bodies.

The three main desiderata for the rapid extension of the suburbs are (a) police protection, (b) water supply and (c) facilities for cheap and rapid transit. Future success in diffusing the population over the suburbs will largely depend on the confidence inspired in the people by guarantees in regard to police protection and water supply, and on the construction of a net work of new roads in advance

close to all the existing railway stations. It is understood that Government have proposals under consideration which will effectively remove the feeling of insecurity that now prevents the lower middle and poorer classes of the population from migrating to the suburbs.

The Development Directorate are working in four centres, each of which is a nucleus of suburban extension, and are affording all reasonable facilities for prospective settlers and builders. But it must be owned that although a fair amount of area is opened up, house building is not making rapid progress.

Some bolder measures seem necessary. Suburban extension should be planned out with roads and building plots sufficient to accommodate a quarter of a million population. And of this area, the actual building of roads and laying on water supply should be done in advance for a population of about 1,00,000. If combined with this, adequate police protection and rapid transit facilities are arranged for, there is no doubt but that building work will proceed at a rapid pace. Some eighteen years ago, I submitted proposals to Government advocating the construction of a road parallel to the existing one alongside the B. B. & C.I., Ry., and cross roads connecting the two in order to open up the excellent building area available by the side of the railway line in Salsette beyond Bandra. Suburban settlements may also be opened gradually along the extensive areas round the harbour and access given to them from the business centres of the City by suitable water craft.

City Planning.

31. The publication is suggested of a comprehensive plan of the City accompanied by a statement showing all the works in progress and all the schemes projected,no matter by what agency. A plan of some sort exists but it does not appear to have been issued to the outside public. In a narrow sense, city planning provides for (1) replanning of areas already occupied in order to relieve congestion and improve housing and traffic and living conditions and (2) preparing, in advance, plans for areas not yet built upon with a view to their future development. In a wider sense, city planning should include not only the City proper but the works and improvements contemplated in the suburbs as well as the harbour. It should take note of the various economic and social pro-

blems of the City, and define in advance the localities and limits of areas comprising the various schemes contemplated.

Zoning.

32. Provision should be made for zoning, i.e., marking off areas or districts, intended more or less exclusively for specific civic objects. Special sections of the City may be set apart for foreign and wholesale trade, local trade, large industries, minor industries, residences, recreations, and so on. This is being done in some fashion already but the approved schemes and ideals should be more clearly defined and constantly kept in view and worked for than is the case at present. The Bombay City will have its Government offices, the University, piles of railway offices, large commercial houses, great buildings and fine parks in the southern part of the Island, which will give distinction to the City and constitute what may be called its civic centre. The bazaars and the great mass of the population will continue to be housed in the heart of the City. The northern part of the Island, as the marshy areas come to be reclaimed and opened up by new roads, will provide additional room for residential buildings on an extensive scale.

Ward Amenities.

33. The officials in every ward should meet at least once a week, to hear complaints and suggestions from the people of the locality and arrange among themselves to meet the wants of the people as far as it lies in their power. The people of the ward should also form themselves into associations to supply their own needs and to be able to represent in a collective capacity their wants to the officials. Some of the needs for which both the public and the Municipal officials may work for are : pure milk supply, recreation grounds, gardens and garden music, cheap tram and transit services, schools—primary, technical and commercial—classes for adult education, classes for teaching girls and women domestic economy, embroidery, sewing, etc.

The City's Special Problems.

34. I have dwelt on most of the larger wants of the population. If the City is to develop in an orderly manner with the growing population, some of those wants need working for far more insistently than others. The following are some of the City's larger problems which require special and continuous attention :—

Housing shortage,

Reducing cost of living,

Drainage,

Suburban extensions,

Cheap and rapid transit to the suburbs,

Extension of educational facilities,

Aids to industry and trade, and wealth building activities of the people,

Provision of more parks and open spaces, and

Improving and standardising ward amenities.

It is necessary that the City of Bombay, like most Western cities, should keep under continuous investigation all the special problems which affect the prosperity of the city or the efficiency of its administration. Each such problem or group of problems should be entrusted to an able official and a special committee or commission composed of three to five earnest men, possessing driving power and willing to get into close grips with details. The members should be paid reasonable fees for the work. The secret of success lies in selecting the right type of officials to help them. These committees should be supplied with funds and clear instructions, and asked to submit progress reports and the results of investigation at regular intervals. Some of the more capable municipal officers should be able to undertake such investigations in addition to their ordinary duties.

Three Development Agencies.

35. Of the three agencies engaged in the work of development and improvement, the City Improvement Trust is the oldest body. It receives a contribution from the Municipality to the extent of about Rs. 22 lakhs per annum, and the bulk of the capital hitherto expended has been advanced by Government. Its operations are confined to the City proper, and up to the present altogether a sum of Rs. 15½ crores has been expended on the new works and improvements carried out by the Trust. All this capital is expected to come back from the land in due course in the shape of proceeds of sales and leasing.

The next most important agency, if next at all, is the Government Development Directorate brought into existence in the year 1920. The principal developments controlled by it are reclamation works, housing and suburban extension, and it has accepted responsibilities both within and outside the City. The capital expenditure on the development operations incurred by this agency up to the end of 1923-24 was Rs. 6½ crores. The operations are financed by Government, and the Directorate is in receipt of a yearly contribution equivalent to four-sevenths of the proceeds of the cotton cess.

The Municipality has its own development department which has initiated new schemes both in south and north Bombay, besides carrying out various improvements to the City services on a large scale. This work was begun in the year 1919 and the total capital expenditure which will have been incurred up to 31st March next is estimated at Rs. 267 lakhs. The operations are financed by public loans raised by the Municipal Corporation, who are given by Government a yearly contribution of about Rs. 14 lakhs for the purpose, being three-sevenths of the receipts from the cotton cess.

The first agency, the City Improvement Trust, is a separate body created in 1899 specially for the improvement of the City, the second agency is a department of Government and the third agency is a department of the Municipal Corporation. The ordinary administration of the City vests with the Corporation and as already explained, the suburban areas are administered by a number of local bodies, who are either small municipalities or Notified Area Committees. As explained once before, the entire development work in the suburban area is regulated and controlled by the Government Development Directorate. Mention is necessary in this connection of the harbour developments carried on by the Port Trust, and the extensions and improvements in progress in connection with the two great railway systems which have their head-quarters in Bombay.

Central Development Board.

36. From what has been said above, it is clear that the first requisite of healthy development is the existence of common ideals and unity of aim among all the agencies working for the good of the City. Although the city planning is done by experts

and officials, it is the people who have to build, and any steps that may be taken to secure their co-operation and enthusiasm cannot fail to be helpful in the City's advancement. It must be recognised that one of the main purposes of the development schemes is to increase residential buildings for the poor, but so far not much progress has been made in this respect in spite of the large expenditure already incurred. The health and economic interests of the suburbs, both residential and industrial, are closely linked up with those of the City, and the Municipal Corporation have no voice at present in their regulation or development.

If the public are kept fully informed of the utility and beneficent objects of these schemes, the development movement will receive a great stimulus. It is therefore suggested that Government be moved to bring into existence a Central Board or Commission representing the various interests, including representatives of the Legislative Council, the Municipal Corporation, and the local authorities of the suburbs. Such a Board, if truly representative, would work in close touch with the public interested in the advancement of the schemes and help to secure their co-operation and support. In Great Britain municipal schemes form the subject of detailed public enquiry; they are closely scrutinized by the representatives of the Ministry of Health. In other countries also, city planning schemes benefit greatly by public scrutiny and criticism. The Central Board proposed for Bombay should be able to secure these objects. Even if it did nothing more than meet once a quarter for a week to give a hearing to the leading citizens and experts, and then issue to the public statements of its considered opinion and recommendations on the various schemes put forward for the advancement of the City, it will have served a most worthy purpose.

CHAPTER VII.

SUMMARY OF RECOMMENDATIONS.

37. The day to day administration of municipal affairs is proceeding smoothly but there is room for improvement in the system and methods of work. The details of departmental procedure require better regulation and control by means of rules, manuals or codes. The larger project estimates need to be scrutinized and approved by an independent agency, or by a committee of experts, instead of the scrutiny being confined to the Engineering Departments who prepare them. The Chief Accountant who, in the matter of departmental accounts, is merely a book-keeper at present, should be allowed access to all the account books and documents maintained in the various departments and be free to audit them. The capital expenditure on all public works has risen beyond all precedent, it having recently gone up to about Rs. 3 crores per annum. If the water works be excluded, none of the works in progress are such as require completion in any great hurry. The expert staff being limited, such a rush of expenditure inevitably leads to hastily prepared estimates, frequent revisions of details, excess expenditure over sanctions, and other abnormal and uneconomical practices.

Object of Changes.

38. One of the chief objects of the reforms advocated is to bring the Municipal Councillors into closer touch with executive work, and to make a larger number of officials and citizens think and work in unison for advancing the interests of municipal administration and municipal problems. The reforms most needed to this end are the creation of Executive Committees, and the separation of administrative and executive appointments and explained in detail in Chapter IX.

39. By undertaking the present enquiry, the Corporation have made a small beginning in the direction of Municipal retrenchment and reform. The Retrenchment Enquiry Office will continue to be engaged in this work for some time longer. If the working of the departments which have not hitherto been examined is gone into, even an imperfect investigation will reveal scope for

economies and increased efficiency. In regard to reforms as a whole, a definite programme has been drawn up and many of the subjects entered in the programme developed into concrete proposals on which practical action is awaited, and it is presumed the Corporation are resolved to carry through to a successful issue all the detailed measures so far approved by them or by the Committees concerned.

40. Bombay is one of the fifteen large cities of the world. In point of population it already ranks second in the British Empire. The methods followed in the administration and development of cities like London, Manchester, Glasgow, Berlin, New York, Toronto, Tokyo, etc., have many lessons for us, and one of these lessons is that the affairs of this large City cannot be handled effectively without a continuous study of its wants and defects, and without maintaining close touch with the improvements and developments going on in the Western World. The latest foreign experience also teaches us that Bombay's special problems should be investigated vigilantly and not left to chance or till action is forced on the Corporation under the pressure of an emergency. An emergency solution is never very satisfactory and it will be almost always more costly.

Recommendations.

41. My recommendations, so far as they relate to action to be taken in the immediate future, may be summarized as follows :—

(1) To arrange for rapid progress on the measures of retrenchment and reform embodied in the programme (Appendix I) already approved by the Corporation and to obtain quarterly reports thereon till the programme is fully worked out.

(2) To give effect to the items of the programme for which detailed proposals have been worked out.

(3) To examine the departments and services still remaining to be investigated and frame proposals for retrenchment and reform for each one by one.

(4) To instruct the Chief Accountant to inspect the account books of the Engineering and other departments of

the Municipality and take steps to improve the system of audit so as to provide a more effective check over expenditure.

(5) To maintain the latest information and statistics concerning the working of half a dozen typical cities abroad for study by local officials and agencies and comparison with local methods and practices; and whenever any important local improvement or reform is contemplated, to take steps to collect all available information of value on the subject from foreign cities before undertaking or putting into practice such improvement or reform.

(6) To take very early steps to get the Municipal Act amended with a view to the establishment of Executive Committees and the appointment of Administrative officers, as described in Chapter IX of this Report.

(7) To transform at the earliest possible opportunity the present Retrenchment Enquiry Office into a permanent Municipal Research Bureau, described in Chapter II.

(8) To submit a representation to Government in the matter of the establishment of a Central Development Board competent to deal with all the administrative and development measures and problems which affect the Metropolitan area, comprising the City and the suburbs, as a connected whole.

(9) To appoint small committees, with competent executive officials to help them, with a view to maintaining a continuous study of the special problems referred to in Chapter VI and advancing their solution from stage to stage.

M. VISVESVARAYA,

T. H. BIRD,

Secretary.

Bombay, 31st January, 1925.

PART II

WORK DONE & PROPOSALS SUBMITTED

CHAPTER VIII

PROGRESS OF THE RETRENCHMENT ENQUIRY.

Preliminary Report.

42. The Preliminary Report on Municipal Retrenchment and Reform was issued on the 25th June, 1924, and was at once taken into consideration by the Retrenchment Committee of the Corporation. The Committee submitted a report to the Corporation, under date the 5th July, 1924, making the following recommendations :—

(*a*) That the suggestions for Administrative Reform and the constitution of Executive Committees be approved, and the Commissioner be requested to submit proposals for carrying them out to the extent that is possible without the amendment of the Municipal Act, and that for such of the recommendations as require amendments of the Act, the Commissioner be requested to submit to the Corporation draft amendments of Sections so as to give effect to the proposals embodied in paragraphs 35, 36 and 37 of the Report.

(*b*) That the suggestions in paragraphs 39, 40 and 41 of the Report relating to Ward Organization, Office accommodation, and equipment, periodical examination of the working of the Departments, and the preparation of a Municipal Year Book, etc., be approved, and the Commissioner be requested to submit proposals for giving effect to them ; and that the suggestions for

(1) The preparation of an Accounts Code and Manual, and

(2) The creation of the post of a Controller of Accounts with powers, functions and duties laid down in paragraph 45 of the report be approved.

(c) That the recommendations made in paragraphs 46 47 and 48 dealing with a general programme for every large scheme, keeping of separate accounts of large Municipal enterprises such as Water Works, and Markets, inventory of Municipal property, valuation of machinery and plant, and the reorganization of the Accounts Department, be referred to the Standing Committee, with intimation that this Committee are in favour of necessary action being taken on the lines suggested, with the modification that there is no necessity for having a separate Finance Committee in view of the already existing Standing Committee, who are empowered to deal with all financial matters.

(d) That as regards the retrenchment work proper a Committee of three members of the Corporation should be appointed to act as an Advisory Committee and that the Corporation should express their opinion that in case this Committee, the Commissioner, and the Retrenchment Adviser unanimously agree to the adoption of any measures, they should be given effect to forthwith so far as it rests in the hands of the Commissioner.

(e) The suggestions in paragraph 52 of the report regarding the steps which are necessary for restricting Loan Charges be approved in principle, and the Commissioner be requested to forward them to the Departments concerned and obtain from them definite proposals to give effect to them. These proposals have to be scrutinised by the Retrenchment Adviser, considered by this Committee in consultation with the Commissioner, and placed before the Corporation for orders.

43. This report was considered by the Corporation on the 17th July, 1924, and after discussion a resolution No. 4042. was carried in the following terms :

Resolution of the Corporation.

"That the third report dated the 5th July, 1924, of the Retrenchment Committee regarding the Preliminary Report of the Retrenchment Adviser, be approved and adopted, and a copy be forwarded to the Commissioner and the Standing Committee for information and necessary action for giving effect to the Committee's recommendation; that a Committee composed of the President, the Chairman of the Standing Committee, Dr. K. E. Dadachanji, Mr. C. W. E. Arbuthnot and Mr. Jamnadas M. Mehta, be appointed, to whom detailed proposals regarding retrenchment in each Department should be submitted by the Retrenchment Adviser for their information; that in case the Committee, the Commissioner and the Retrenchment Adviser unanimously agree to the adoption of any measures, they should be given effect to forthwith so far as it rests in the hands of the Commissioner."

Staff and Budget Grants.

44. The Preliminary Report having been thus approved by the Corporation, steps were immediately taken to prepare a programme of the work to be attended to by the retrenchment staff and to obtain the necessary assistance.

Mr. C. M. Correa, Assistant Accountant-General in Government service, was selected as one of the officers to assist the Retrenchment Adviser. This appointment was sanctioned on the 9th August, 1924, and Mr. Correa joined duty on the 19th August. The appointment of another officer in the person of Mr. N. D. Mehta, District Deputy Collector, Ahmedabad, also a Government officer, was approved by the Corporation on the 13th August, 1924, but considerable delay occurred in getting the sanction of Government to the loan of his services, and it was not until the 1st October that he was able to join the staff.

45. The original grant of the Corporation for the expenses of the inquiry was Rs. 20,000 but this covered only the preliminary investigations. To cover the expenses of the full enquiry an additional grant of Rs. 50, 000 was approved by the Standing Committee

on the 20th September, 1924, and sanctioned by the Corporation on the 9th October, 1924. It will thus be seen that certain delays took place in getting together the necessary staff and the power to incur the necessary expenses.

Programme of Work

46. Soon after the receipt of the Corporation's sanction to the proposals, a programme of the work to be undertaken by the Retrenchment Enquiry Staff was drawn up (Appendix No. I). This programme was divided into five sections, *viz.*,

(1) Retrenchment and Reform in 6 groups of Departments,

(2) Restricting Loan Charges,

(3) Administrative Reform,

(4) Accounts, and

(5) Final Report,

and was approved by the Retrenchment Advisory Committee on the 5th August 1924.

Administrative Reforms.

47. Attention was first given to the question of Administrative Reforms. An exhaustive note on the subject was prepared by Mr. R. P. Masani, late Deputy Municipal Commissioner, which is given in extenso in Chapter IX.

There being legal matters involved in this report, the Advisory Committee decided to request the Commissioner to obtain the opinion of the Municipal Solicitors upon the alternative proposals for the amendment of the Municipal Act, and to postpone a decision upon the question until the receipt of such opinion. It being considered that retrenchment and reform should proceed hand in hand if the requirements of economy and efficiency were to be simultaneously satisfied, the next work undertaken was the question of reforms and re-organization of the Engineering and other Departments, but at the meeting of the Advisory Committee held on the 24th October, stress was laid on the importance of completing the retrenchment work first, in order that the savings that may be secured could be embodied in the budget for 1925-26. Attention was therefore from that date onward concentrated almost solely on retrenchment work.

48. The retrenchment proposals fell under three main groups—

Retrenchment Proposals.

(1) Engineering Departments,
(2) Public Health Departments, and
(3) All other Departments and Services.

The investigation into the first group was carried out by Mr. T. H. Bird, Secretary to the Retrenchment Enquiry, under my direct instructions. Investigation into the second group was entrusted to the Retrenchment Officer, Mr. N. D. Mehta. As regards the third group, it was found that savings in the Administrative and Revenue Departments almost wholly depended upon reforms and re-organization and it was therefore decided to postpone the investigation of this group, with the exception of the Markets and Slaughter-houses, until the second stage of the Enquiry was reached. The debt problem, requiring exhaustive examination of the records and estimates of the Special Engineer's Department, was entrusted to Mr. C. M. Correa.

49. The first necessity to a thorough investigation was the preparation of full and detailed statistics of the expenditure of the Departments for a period extending over 20 years. The collection and collating of these statistics was a task of some magnitude, and was complicated by the several changes in the classification of the expenditure which had been made during that period, particularly the extensive re-grouping effected in 1921.

50. The Departments were then inspected one by one, visits paid to the outside offices and the works in progress, plans and estimates perused, and other steps taken to become thoroughly acquainted with the actual nature of the work of each Department.

51. Discussions with the Heads of Departments took place from time to time, and when the suggestions of the Retrenchment Officers had sufficiently matured, a series of conferences were held between the Municipal Commissioner, the Heads of the Department concerned, and the Retrenchment Staff. After receiving the criticisms of the Executive Officers, the suggestions were then further discussed by the Retrenchment Adviser and the Retrenchment Officers, and finally on the 6th December, 1924, complete notes and schedules were submitted to the Retrenchment Advisory Committee

and approved by them. In accordance with Corporation Resolution No. 4042 dated 17th July, 1924, the schedules were duly submitted to the Standing Committee for inclusion in the budget for 1925-26, and the Advisory Committee requested the Commissioner to give effect to the proposals so far as they rested with him.

52. The following table gives a summary of the savings effected together with the corresponding items of the new budget for 1925-26 :—

Departments and Services.	Expenditure proposed in budget for 1925-26	Savings expected.	Remarks.
Executive Engineer, (General	6,03,328	75,638	The savings on the 1924-25 budget amount to Rs. 11,25,874.
Buildings, etc.)	31,91,966	3,68,324	
Roads	7,13,820	25,220	
Drainage			
Mechanical (Pumping and Compressor Stations) ..	7,52,780	83,194	
Water Works	11,25,348	53,464	
Health-General, and Medical Relief	12,37,510	1,11,594	
Conservancy	26,01,182	2,64,108	
Conservancy Traction ..	15,73,173	92,504	
Hospitals	2,10,863	23,442	
Markets and Slaughter houses	5,45,167	35,398	
Total ..	1,25,55,137	11,22,886	

Details are given in Table VII.

Appendices II to XVII are the notes prepared by the Retrenchment Officer, Mr. N. D. Mehta, and the Retrenchment Enquiry Secretary, Mr. T. H. Bird. The notes give the arguments and figures upon which my conclusions have been based.

Other Proposals.

53. The submission and approval of the retrenchment schedules and statements completed the first stage of the enquiry which dealt with most of the superfluities. The second stage concerns retrenchments of a more delicate nature where the work has to be done on the border line between efficiency and economy. This will take time to complete, for if the work is hurried it may lead to dislocation of business and even loss of revenue. The Retrenchment Staff are now actively engaged on the second stage, and the results of their investigations will in due course be

submitted to the Retrenchment Advisory Committee and the Corporation, but they are not sufficiently advanced to be embodied in this Final Report.

54. The question of the re-organization of the Engineering Departments, which was in progress when the Advisory Committee requested that retrenchment work should be given precedence, was again taken up and was duly completed and submitted to the Advisory Committee on the 9th January. This report is given in extenso in Chapter X.

55. The problem of the control of Loan Works Expenditure also engaged my attention. The notes and statistics prepared by Mr. Correa were examined, together with the suggestions submitted by the Accounts Department. The result of the examination of this question is embodied in Chapter XI of this report.

56. The Retrenchment Advisory Committee have held ten meetings in all and have presented to the Corporation one report which summarised the retrenchment proposals. Further reports by the Committee will no doubt be submitted to the Corporation at an early date, stating their views and opinions upon the reform and re-organization proposals. and the suggestions for the control of Loan Works Expenditure, referred to above.

Continuation of Enquiry.

57. The Retrenchment Advisory Committee have agreed to the continuation of the services of Mr. Mehta and Mr. Bird, with the necessary staff, up to the end of March next, in order that the work laid down in the programme already approved may be carried out. There are several Departments which have not yet been examined, and it is necessary that these should be taken up, and the savings in expenditure possible, and reforms necessary, suggested for each, one by one. The Retrenchment Advisory Committee will, it is presumed, continue to direct the operations of the staff.

58. As regards the continuation of the Enquiry after the 31st March next, my suggestions will be found in Chapters I and II of this Final Report.

CHAPTER IX

ADMINISTRATIVE REFORMS.

(i) *Note by Retrenchment Adviser.*

59. In the Section devoted to Administrative Reforms in my Preliminary Report, two main proposals are put forward, namely,—

Main Proposals.

(1) the appointment of Executive Committees on the English model, and

(2) the creation of three new administrative appointments in the Municipal Service.

The question of the additional statutory powers needed to give effect to these proposals is discussed in a note dated the 15th September, 1924, prepared by Mr. Masani at the request of the Retrenchment Committee.

There is a concensus of opinion as regards the desirability of these changes, although differences exist as to the degree or extent to which effect should be given to each. The first of these proposals is not new. It originated with Mr. Masani himself and the Corporation have already taken some action on it. The second proposal, it may be explained, involves not the creation of three entirely new appointments but the raising of the status and emoluments of three existing ones.

60. The aim of the proposals is the transfer of responsibility for many of the executive details and minor matters of administration to the heads of the Municipal Departments concerned, under the supervision of Executive Committees and administrative officers. The latter class of officers will be in close touch with the administrative and technical work done in the different departments under their supervision, and will keep the Commissioner and the Corporation informed of their deficiencies and needs. The responsibility for the higher questions of policy and larger measures of administration and finance will remain, as at present, with the Corporation and the Municipal Commissioner. The Standing Committee will be merged in the new Finance Committee.

Aim of the Proposals.

61. The discussion now centres round the functions and powers to be entrusted to the Executive Committee. There are three phases of this question, as indicated in Mr. Masani's note.

Functions and Powers of Executive Committees.

(1) Amendment to the Municipal Act in the shape of Section 38A already put forward.

(2) Other statutory changes, and undertakings in order to give the scheme a trial.

(3) Thorough-going changes in the Act with a view to giving full effect to the proposals in the course of three years.

Section 38A now before Government provides for the delegation of the Corporation's powers to the Committees but not any of the powers of the Municipal Commissioner or the Standing Committee.

If we are to be content with the first proposal, things will not be very different from what they are now. The second alternative will make the position more complex and the success of the scheme will be largely dependent on the personal element. Under certain conceivable conditions the arrangements may even break down and the Executive Committees may prove a fifth wheel to the coach.

If we are to give the proposals a fair trial, the full statutory provisions referred to at the end of Mr. Masani's note will be necessary. The Executive Committees might begin work by submitting every resolution to the Corporation, and as the business transacted and the resolutions passed are found acceptable, limited powers of sanction and control might be gradually transferred to the Committees.

62. The question of how many Executive Committees there should be is a matter of detail, but the best authorities on the subject seem inclined to the view that the larger the number of Committees, the more divided will be the responsibility. I have no particular objection to ten Committees, while I would prefer concentration of power and responsibility in six or seven. All other requirements can be met by each Committee appointing a suitable number of Sub-committees from among its own members.

Provision in the Act will be necessary for co-opting on the Committees men of experience from outside and for the payment of fees both to the regular and co-opted members. Payment of fees at the outset cannot be avoided if the system is to have a fair trial. The scale of fees suggested by Mr. Masani seems suitable and may be accepted. It might be possible to dispense with this inducement after the Committees have learnt to function for some time.

It should be possible to delegate to the three administrative officers the necessary powers without giving them the designation of " Deputy Municipal Commissioner " and to raise their pay above the limit of Rs. 2,000 when necessary. This latter necessity will arise at once in regard to the appointment of a Chief Engineer.

All these matters can be satisfactorily dealt with only after the necessary statutory powers are obtained from Government.

Functions of the Municipal Executive.

63. The functions of the Municipal executive are now regulated and controlled by the Municipal Act. There are some twenty or more departments, many of them unco-ordinated and doing varied technical duties, and looking to one head for guidance. It is not possible under such a system for the Municipal executive to give more than bare allegiance to statutory provisions. Under such a system there is no scope or inducement for local initiative to come into play in order to improve or perfect the details of the administration. This is what the proposals we have in view aim at securing in future.

Proper Grading of Work and Responsibility.

64. The chief result aimed at is a proper grading of work and decentralisation. The larger Municipal problems will be separated from the minor questions and details of administration, and the responsibility for all of them fixed according to grade or office. The Executive Committees and the administrative officers will relieve the Corporation and the Commissioner of the necessity for going into many of the details of the administration which, on account of the growing size of the City and the increasing volume of daily business, it is impossible for them to attend to in a satisfactory manner. The very fact that they are paying attention to many small details militates against their ability to deal with the

larger problems of Municipal administration with the detached attention and thoroughness demanded by the latter.

65. The question is now ripe for decision. The main principles of reforms have to be settled by the Retrenchment Committee and the Corporation in consultation with the Municipal Commissioner and the Standing Committee. They will have to decide whether they would be content with the partial or provisional remedies suggested or urge the adoption of more thoroughgoing changes in the Act, with a view to bringing the Executive Committee System into full working order in about three years time. When their decision is known the case can be worked up in the final form necessary for submisson to Government.

Action Necessary.

M. VISVESVARAYA.

Bombay, 20th October 1924.

(ii) Report by Mr. R. P. Masani, Deputy Municipal Commissioner, on Administrative Reforms.

66. I have been asked by the Retrenchment Committee to submit proposals for giving effect to the proposed administrative reforms so far as it is possible to do so without any amendment of the Municipal Act and to suggest draft amendments of the Act in respect of such of the proposals as cannot be brought into operation without statutory authority.

67. The administrative reforms suggested by the Retrenchment Officer are :—

(1) Appointment of Executive Committees,

(2) Division of the staff into two grades (*a*) Administrative, and (*b*) Executive.

As regards (1), I find that somewhat conflicting impressions prevail as regards the constitution and functions of the proposed Committees. It will, therefore, be necessary to define clearly the nature of the Committees. Are they merely to decide what is to be done, and is the execution of their decrees to be left to the Commissioner, as at present, or is it proposed to delegate to them the administrative powers of the Corporation as well as the administrative and

executive powers of the Commissioner? Sir Visvesvaraya recommends in his preliminary report that "the English system of Executive Committees should be brought into effect almost in its entirety." If this recommendation is accepted the Committees should act in an administrative as well as an executive or operative capacity. Such an arrangement would be incompatible with the retention of the Office of the Municipal Commissioner as the Chief Executive Officer of the Municipality. Sir Visvesvaraya has therefore placed the Municipal Commissioner in the proposed administrative grade of Officers, but I gather from a discussion of the proposed arrangement with him that he recognises that there should be a period of transition during which the executive functions should be shared by the Committees with the Commissioner.

68. The existing position as regards committees of the Corporation is as follows :—

Section 38 of the Act provides for the appointment of merely consultative committees for special purposes.

The Bill which is now on the *tapis* and which, it is understood, will be introduced in the Council during the next session, embodies a new Section 38A authorizing the Corporation to appoint special committees and to delegate at their discretion any of their powers and duties to such committees.

Sir Visvesvaraya goes a step further and recommends that instead of giving only partial effect to the scheme of executive committees the Corporation should bring the scheme into operation in its entirety.

69. The questions for consideration are :—

(1) Without legislation or pending legislation can the proposals be carried out, and if so to what extent and how ?

(2) What amendments of the existing provisions of the Act are necessary to give effect to the proposals ?

The new Section 38A provides for the delegation of the Corporation's functions to the special committees. It will, therefore, be competent to the Corporation, when the Bill is passed, to bring the scheme of executive committees into operation to a certain extent, but not until the Act is further amended can the function of the Standing Committee and the Municipal Commissioner be delegated to such committees. It will, however, be open to the

Corporation to ask the Standing Committee and the Municipal Commissioner not to exercise any of their powers in respect of certain matters which, in their opinion, should, in the first instance be referred to the special committees and to take their opinion or decision into consideration before taking action in such matters. Such a procedure was once adopted by the Corporation in connection with questions relating to the Tramways. The Tramways Act vested certain powers in the Commissioner. The Corporation considered it desirable that the Commissioner should consult them before taking action in regard to certain important matters and therefore asked the Municipal Commissioner by a special resolution to refer such matters to them (*vide* C. R. No. 2110 of 23rd July, 1906). This requisition, though not binding on the Commissioner, was always complied with by him. I would, therefore, suggest that as soon as the aforesaid Bill is passed special committees may be appointed and powers delegated to them at the discretion of the Corporation.

70. At the meeting of the Retrenchment Committee, held on 5th August 1924, it was agreed that the following executive committees should be constituted :—

1. The Standing (or Finance) Committee.
2. The Schools Committee.
3. The Public Health Committee.
4. The Water Works & Drainage Committee.
5. The Roads and Buildings Committee.
6. The General Purposes Committee.

I am afraid such a classification will entail somewhat excessive work on some of the committees, especially on the last named committee. It is proposed to pay fees to members of committees to compensate them to a certain extent for their work, but until the Act is amended to admit of the payment of fees as proposed, and even after it is amended, it would perhaps be desirable to increase the number of committees from six to nine as follows :—

1. The Standing (or Finance) Committee,
2. The Schools Committee
3. The Water Works Committee,
4. The Drainage Committee,
5. The Roads and Buildings Committee,
6. The Public Health Committee,

7. The Medical Relief Committee,
8. The Stores and Contract Committee,
9. The Legal and General Purposes Committee.

71. The executive functions of the Commissioner will remain the same, but, as suggested above, the Corporation may ask him, by special resolution, to consult certain committees in connection with certain matters before exercising his powers in regard thereto. It will also be open to the Commissioner to refer to the committees other matters concerning which he would prefer to have their opinion before taking action. In this way there will be devolution of the executive powers vested in the Municipal Commissioner by the Act, and the delay involved in the present procedure in the reference of questions to the Corporation and the committees and their disposal will be obviated. The Corporation will have an effective control on the executive work of the Municipality through their committees and the harmonious co-operation of the deliberative and executive branches of the Municipal organisation will be ensured.

72. After the committees have had sufficient time, say three years, to acquire sufficient knowledge and experience of the executive machinery, the question of wholesale amendments of the Act so as to obtain for the Corporation all administrative and executive powers with authority to delegate them to committees, may be considered. If, however, it is desired to bring the scheme of executive committees into operation without any limitation, statutory authority will be necessary to distribute amongst the committees the functions now vested in the existing Municipal Authorities. So radical a change in the constitution of the Corporation will necessitate a new Act or the wholesale amendment of the existing Act. The Standing Committee and the Municipal Commissioner, the two co-ordinate authorities charged with the carrying out of the provisions of the Municipal Act, in conjunction with the Corporation, will have to be abolished and all the Sections dealing with the functions of these two authorities will have to be recast.

73. As, however, it is not the intention to dispense immediately with the Office of the Commissioner,—Sir Visvesvaraya retains the Office and suggests the appointment of three additional deputies—it seems desirable to retain the existing provisions of the Act and

to obtain for the Corporation general powers to make such amendments as they think fit for the appointment of executive committees and the delegation of specific duties and powers to them so as to admit of the executive committees functioning without delay. If this view is accepted, all that is necessary is to amend Section 38 so as to provide more definitely for the appointment of the executive committees than contemplated by the proposed new Section 38 A and to amend Section 64 so as to authorize the Corporation to determine by whom and in what manner the respective functions of the several Municipal authorities should be exercised.

74. The amendments I would suggest are as follows:—

(A) For the existing Section 38 (and the new Section 38A if already enacted) the following Section shall be substituted:

"(1) The Corporation may from time to time appoint out of their own body such and so many committees, either of a general or special nature, and consisting of such number of persons as they think fit, for any purposes which, in the opinion of the Corporation, would be better regulated and managed by means of such committees (cf. Municipal Corporation Act, 1885, Section 22).

(2) The Corporation may delegate to a committee, with or without regulations and conditions any of their powers and duties and any of the powers vested by this Act in the Standing Committee and the Commissioner, except the power of levying taxes or raising money, and direct that all matters and questions included in any such sphere shall, in the first instance, be placed before the appropriate committee. (cf. Local Government Act, 1888, Sections 28 (2) and (3) and Section 81 (3).)

(3) Every committee shall conform to any instructions that may from time to time be given to them by the Corporation. (See subclause (2) of proposed Section 38A)

(4) Proceedings of every committee shall be subject to confirmation by the Corporation.

Provided that any committee by a special resolution supported by at least one half of the whole number of members on the committee may direct that action be taken in accordance with the decision of the committee without waiting for confirmation of their other proceedings by the Corporation if they consider that serious inconvenience would result from delay in taking such action; but if the Corporation do not confirm the proceedings of the committee, such steps shall be taken to carry out any orders passed by the Corporation as may still be practicable.

Provided also that if in delegating any of their powers or duties to a committee, under Sub-section (2), the Corporation direct that the decision of the committee shall be final, then so much of the proceedings of the committee as relate to such powers or duties shall not be subject to confirmation by the Corporation, provided that such decision shall be supported by at least one half of the whole number of members on the committee (see Sub-clause (6) of proposed Section 38A.)

(5) The Corporation may at any time dissolve or subject to any rules made by them in this behalf alter the constitution of any committee (See Sub-clause (3) of Section 38A).

(6) The Corporation may make rules for regulating the constitution of committees and the conduct of business at meetings of such committees, and for the keeping of the minutes and the submission of reports."

N.B.—For the rules to be framed under this Sub-clause there are excellent models, viz. Standing orders of the London County Council and of other Corporations in Great Britain.

(B) For Section 50 of the Act, the following Section shall be substituted :

"Every member of the Standing Committee or of an Executive Committee shall be entitled to receive a fee of Rs. 15 for each meeting of the said committee at which a quorum is present and business is transacted and which he attends from the beginning to the end thereof; Provided that the aggregate amount of fees payable to any member of the committee in respect of meetings held during any month shall not exceed Rs. 60 or such sum as may be fixed by any bye-law from time to time made in this behalf." (This is in accordance with the decision of the committee).

(C) After Sub-Section (1) of Section 64 the following Clause shall be inserted :—

"Provided that the functions assigned to the Standing Committee and the Municipal Commissioner shall be subject to such restrictions, limitations and conditions as may be involved in the orders passed by the Corporation under Sub-section (2) of Section 38 of this Act."

(D) After Sub-clause (2) of Section 64 the following clause shall be inserted :—

"and they shall have the authority to determine by whom and in what manner the duties and powers vested by this Act in the several Municipal authorities shall be exercised."

75. If it is held that the proposed amendments do not adequately provide for the object in view or that they are repugnant o the fundamental principles of the existing Act, the only alternative will be to recast the Act. After the Committee has considered the alternative proposals as suggested by me, further amendments and the rules prescribing the constitution of committees and regulating the conduct of business at meetings of such committees will be drafted if necessary.

76. As regards the division of the staff into administrative and executive branches, as proposed by Sir Visvesvaraya, no amendments of the Act appear to be necessary. Sir Visvesvaraya has recommended the creation of three new appointments, namely, the Chief Engineer, the City Health Officer, and the Controller of Accounts, and has suggested that for the purpose of the Municipal Act these three technical officers may be designated Deputy Municipal Commissioners to enable the Municipal Commissioner to delegate, if need be, some of his authority to them.

Section 55 of the Municipal Act provides for the appointment of a Deputy Municipal Commissioner at any time and from time to time. The singular, in this case, includes the plural, so that under this Section it will be competent to the Corporation to create the three new officers. Last year, two special Deputy Commissioners were appointed to hear election complaints under the authority of the same Section.

As regards the powers to be delegated to them, there would be no difficulty if they are appointed as Deputies. Even if they are not made Deputies, they can, under the administrative orders of the Commissioner, relieve him of much of the work that the Health, Engineering and Accounts Departments now refer to him. If at any time it is proposed to transfer to them other functions which the Commissioner cannot delegate to them under the authority given to him by Section 68 of the Act, it will be open to the Corporation to do so under the amended Subclause (2) of Section 64 as suggested by me. With such facilities to lighten the burden of the Commissioner as and when required, it is, in my opinion, not quite necessary to appoint three more Deputy Commissioners. Although the wording of Section 55 admits of more than one Deputy being appointed, the intention of the Legislature was to provide for one Deputy only. Apart from that consideration, it seems illogical to appoint so many deputies when, as the natural corollary to the proposed reforms, the heads of departments will have to work directly under the control of the executive committees, and the office of the Municipal Commissioner will have to be abolished or converted into that of a Town-clerk, as in Great Britain, or a City Manager, as in America, as may be considered desirable in the light of the experience gained during the period of transition.

15th September 1924. R. P. MASANI.

CHAPTER X.

REORGANIZATION OF ENGINEERING DEPARTMENTS.

Previous History and Growth.

77. When the City was given its first instalment of self-government in 1865, an Executive Engineer was placed in supreme charge of all the municipal engineering works. Water works and drainage also came in this category although there was a separate Deputy Executive Engineer in immediate charge of each.

In the middle of 1907 a proposal was put forward to relieve the Executive Engineer of the supervision and control of the Water Works Department and to place that department in sole charge of an expert Water Engineer under the direct orders of the Commissioner. This proposal was eventually approved by the Corporation and the Government, and embodied in Bombay Act II of 1911; and a Hydraulic Engineer, independent of the Executive Engineer, was duly appointed in July 1911.

In 1908, the Assistant Engineer in charge of the Mechanical Branch of the Executive Engineer's Department was raised to the status of a Deputy Executive Engineer. In 1919 to relieve the Executive Engineer of some more of the burden of routine work, the Corporation approved of the appointment of a separate Senior Assistant Engineer to supervise the whole of the road works in the City. This Senior Assistant Engineer has two other senior assistant engineers working under him.

78. The past five years have seen a great extension in the road construction and maintenance programme of the Corporation, and at the present time this branch alone is, in point of size of staff and value of work executed, almost as large as the whole of the Executive Engineer's Department in 1914. When in 1919, after the rigid war-time economy, the City Corporation decided to undertake on a large scale new development schemes and improvements to general city services from capital, they thought it necessary to create a special engineering division and place the bulk of such works under a senior officer. This relieved the Executive Engineer of most of the responsibility for constructing new works of large magnitude.

The expedients adopted from time to time have thus been of a hand-to-mouth order. Although the responsibilities of the Executive Engineer have been lightened in all these ways, the burden of routine work owing to the rapid growth of the City is still too heavy for him. At the present time, he cannot properly supervise the work placed under him, in addition to discharging his duties under the Act and attending to all the miscellaneous general engineering work of the City. The supervision exercised over the subordinate staff is very inadequate.

79. It may be said that in practice the Drainage and Mechanical Engineering Departments are now virtually independent of the Executive Engineer, and the day has arrived when the Roads Branch must also be given a similar status if the work in that branch is to be efficiently conducted and supervised. It is no disparagement to the able and experienced incumbent of that office to say that the old complaint,that the Executive Engineer is unable to do more than act as a 'post office' between the Drainage and Mechanical Engineering Branches and the Commissioner, is of greater force at the present time than it was ten or even five years ago.

This is chiefly due to the concentration of a large amount of executive authority and decisions in the hands of a single officer. Relief can only come by a clear division and sub-division of services, grading the duties and assigning to each senior officer a specific charge with undivided responsibility; in other words, by a proper reorganization of staff and functions suited to the existing needs of the City.

Existing Organization.

80. At the present time the Engineering Branch of the Municipal Service is made up of four distinct divisions as follows :—

(1) The Municipal Executive Engineer, who is responsible for the following :—

(*i*) Municipal Engineering Works and General and Miscellaneous duties,

(*ii*) Inspection of Buildings, in compliance with Regulations under the Act,

(*iii*) Road Works.

(*iv*) Drainage and Sewerage Works, and

(*v*) Mechanical Engineering Section (Workshops, Pumping Stations, etc.)

(2) Special Engineer, Development and Architectural Works.

(3) Special Engineer, Tansa Main Completion Works.

(4) Hydraulic Engineer in direct charge of the City Water Works.

In practice, Departments (*iv*) and (*v*) in the first division are administered by the Deputy Executive Engineers who are in direct charge.

Reasons for Change.

81. It is only within recent years, in consequence of the enormous growth of capital expenditure, that the defects of the present organization have become apparent. The provision contemplated by the Municipal Act of 1888, namely, that there should be one superior engineer officer named the Executive Engineer, with the requisite number of deputy engineers under him, is no longer operative, though the titie " Executive Engineer " is still retained by the officer in charge of General Engineering Works, Buildings and Roads.

Four senior engineers are working directly under the Municipal Commissioner but independently of one another. There is no control over their techincal work and in practice they approve of their own estimates.

The growth of the City and its engineering work has made it necessary that some scheme of decentralization should be attempted and the administrative duties separated from the executive.

The grouping of the engineering work of the City into regular divisions and placing each in independent executive charge of one officer, with a City or Chief Engineer over all, to control and harmonize the work of the divisions, would bring about the co-ordination and technical supervision that is now lacking.

82. In this connection it may be mentioned that in a minute written so far back as 1907 Mr. G. O. W. Dunn, a former President of the Corporation and sometime Secretary to the Government of Bombay, Public Works Department, recorded his opinion that the Water Engineer should continue to be subject to the general

control of the Executive Engineer and that the name "City Engineer" should be substituted for "Executive Engineer" in the Municipal Act. In his opinion to make the Water Engineer entirely independent and answerable only to the Commissioner was a great mistake. He went on to say :— "Work of one general kind should, I consider, be under a single head, and the condition of affairs in a city where water supply, drainage and streets have close relation to one another, requires, in my opinion, a controlling head who shall generally direct the work of the different departments and harmonise their differences."

Proposed Reorganization.

83. It is proposed to divide the entire engineering work of the City into six well-defined separate divisions, each in charge of a Deputy City Engineer, and all of them surpervised by a Chief Engineer. The Chief Engineer, while responsible to the Corporation that each of the six executive divisions is functioning properly, will see to it that due progress is made on all permanent engineering problems and day to day questions that arise in relation to the Government Departments, City Improvement Trust, Development Directorate, Port Trust, etc. In these duties he will be assisted by the Deputy City Engineers. He will keep watch over the wants of the city and bring them to the notice of the Corporation and take the necessary initiative in regard to all new questions that arise in connection with the improvement of the City from a constructional point of view.

The designation of the controlling engineer may be either "Chief Engineer," or simply "City Engineer." The former title will, it is thought, answer better for Indian conditions. The position and duties of the six Deputy City Engineers will correspond to those of Executive Engineers of the Public Works Department under the Provincial Government and to distinguish them from the latter, they may be called Deputy City Engineers.

84. The following will constitute the six Executive Divisions referred to and the main duties allocated to each :—

(1) Deputy City Engineer, Southern Division (A, B, C, and D Wards) who will have charge of :—

(*a*) Roads and Overbridges,

(*b*) Buildings Inspection,

(c) Drainage (subsidiary),
(d) Upkeep of Municipal Head Office, and
(e) Repairs to Municipal Buildings.

(2) Deputy City Engineer, Northern Division (E. F. and G. Wards) :—

(a) Roads and Overbridges, including—
(1) Asphalt Plant,
(2) Sewri Quarry,
(3) Nowroji Hill Crusher, and
(4) Love Grove Tar Macadam Plants.
(b) Buildings Inspection,
(c) Drainage (subsidiary),
(d) Kurla-Deonar Railway and
(e) Repairs to Municipal Buildings.

(3) Deputy City Engineer, Water Works :—
Entire charge of the City Water Supply system.

(4) Deputy City Engineer, Drainage :—
(a) Main Drainage, Sewerage and Sewage disposal works, other than the minor drains entrusted, along with roads, to District Engineers, North and South Bombay,
(b) Pumping and Compressor Stations,
(c) Ejector Stations,
(d) Flood and Sluice Gates, and
(e) Outfall Works.

(5) Deputy City Engineer, Mechanical Engineering Works:—
(a) Workshops,
(b) Mechanical Transport,
(c) Inspection of Factories and Workshops,
(d) Electrical Installations,
(e) Periodical Inspection of all plant and machinery belonging to the Corporation, and
(f) Technical advice on all mechanical and electrical matters.

(6) Deputy City Engineer, City Planning and Improvements Division :—
(a) Architectural Buildings and Works—Preparing designs and undertaking constructional work in special cases.

(*b*) Designing and planning schemes for—

(1) Opening up of congested areas,

(2) Developing large unoccupied or partly occupied areas, and

(3) Future development of isolated pieces of vacant ground.

(*c*) Preparing projects and designs for large engineering works not entrusted to the regular divisions, and

(*d*) Supervising large constructional works, with the aid of competent Resident Engineers and temporary staff, if and when necessary.

Distribution of Expenditure.

85. Statements are attached (Apps. I (d) and II) showing the expenditure, revenue and capital respectively, incurred in the engineering departments since 1913—14. The following table gives the average annual expenditure in the existing divisions or sub-divisions of the Engineering Branch for the four years ending 1924-25. The estimated figures for 1925-26, as revised in consequence of the retrenchment proposals, are also given :—

Departments and Branches.	Average.	Estimated for 1925-26
	Rs.	Rs.
Executive Engineer	5,28,642	5,27,690
Roads Branch	36,11,686	28,33,642
Drainage Department	6,87,956	6,88,600
Mechanical Department (excluding Workshops) ..	7,09,180	6,69,586
Water Works	7,52,240	10,71,884
	62,89,704	57,91,402

The same estimated expenditure for 1925-26, *viz.*, Rs. 57,91,402, distributed among the new Engineering

Divisions proposed, would be approximately as under :—

	Rs.
Chief Engineer	70,000
Deputy City Engineer, Northern District ..	15,44,000
,, Southern	19,48,000
,, Drainage Division ..	11,50,000
,, Water Works Division	10,74,000
Mechanical Engineering Division (excluding Workshops and Transport) ..	8,000
Total ..	57,92,000

The City Planning and Improvements Division is at present concerned with loan works expenditure only.

86. These figures give a rough idea of the amount of work in each division. The bulk of the expenditure in the Mechanical Engineering Division is also large, but as it pertains to workshops and other subsidiary services, is debited to the other divisions and services.

The capital expenditure has varied very considerably from year to year in the past, as may be seen from Table II. The normal total capital expenditure, on all the general services, controlled by the Engineering Departments in future, will probably be between Rs. 25 to 50 lakhs per annum.

Distribution of Engineering Staff.

87. The permanent superior Engineering staff has a strength of 55 officers, of whom 37 are employed on engineering works, etc., primarily connected with maintenance and repairs, and 18 on capital account works. The detailed distribution is shown in the statement appended (Tab. III). The present scheduled annual cost of the technical and clerical establishment of the Engineering Departments employed on revenue accounts works is about Rs. 10.92 lakhs, and that on capital account works about Rs. 6.62 lakhs. Any attempt to deal with the question of regrading or revising salaries of this staff in the present

report would complicate issues. That question will form the subject of a separate report. A preliminary investigation by Mr. N. D. Mehta, Retrenchment Officer, has brought into prominence the fact that the present scale of salaries was based on a scheme temporarily approved by Government in the Public Works Department in 1919. Although Government corrected themselves and lowered their scale soon after, the Municipal scale has remained unaltered. In the suggested redistribution of the staff no reduction of strength is shown, although substantial reduction will, in due course, be possible as a result of the regrouping of duties and responsibilities. The main savings will, however, accrue from the closer supervision and the more efficient manner in which works and repairs will be carried out in future.

88. The staff shown under the City Planning and Improvements Division in the suggested re-organization scheme is the existing staff now engaged on special works and the various schemes of development in progress. When these schemes are completed or curtailed, a corresponding reduction of staff will be possible. The City Planning and Improvements Division, should *normally* consist of one deputy city engineer, one architect, one senior assistant, and two assistant or sub-engineers. Any staff required for future large works of development or construction will be an addition to this and will naturally be of a temporary character.

The suggested redistribution of the staff is provisional and reductions and readjustments should be effected at the time of putting the scheme into operation.

The whole of the Engineering staff employed on the Tansa Completion Works is held to be temporary and is therefore not dealt with in this redistribution.

Some principal features discussed

Supervision by a Chief Enginer.

89. In future the Chief Engineer will exercise supervision over the various Divisions in the same way that a Superintending Engineer does in the Public Works Department of the Provincial Government. He will scrutinize estimates for all large works and when he requires expert help and advice, he will obtain the same from Consulting

Engineers of acknowledged repute or Engineers in practice. He will see that the surveys and projects for schemes in the various departments are making good progress and that the expenditure on them is kept within reasonable bounds. He will be responsible for guarding the interests of the Corporation in respect of all building and engineering work carried out by the Government, Port Trust, City Improvement Trust, Railway Companies, etc., and also by the public utility companies operating within the City.

The Chief Engineer will need two technical assistants, who should be picked men taken from the ranks of Assistant Engineers, to assist him in new schemes and designs to keep the engineering work of the City up to date and at a high level of efficiency.

Division of City into two districts for Road and Buildings.

90. For the purposes of Roads and Buildings, both construction and maintenance, the City will be divided into two districts, North and South, each in charge of a Deputy City Engineer. The Northern District will comprise 3 Wards, *viz.*, E, F, & G, and the Southern will consist of 4 Wards *viz.*, A,B, C & D. It is necessary that the work of these two Deputy City Engineers should be made as nearly equal as practicable.

These two Roads and Buildings divisions will, in future, have charge of the construction and maintenance of all subsidiary drains and sewers of and below a certain size to be determined at the time of constituting the new division.

91. The following particulars will give an approximate idea of the size and amount of work in each District—

Particulars.	Northern District.	Southern District.
Area .. .. Acres..	10,899	4,167
Population	620,709	561,400
No. of houses	22,659	30,115
Road mileage .. .. Miles..	76.16	105.83
New buildings constructed, average for 12 years No.	761	409
Alterations to Buildings carried out, average for 12 years .. .. No.	240	414

The Northern District is larger in area, has a large number of houses under construction and is more industrial. The Southern

District contains business houses and better classes of residential premises. The Deputy City Engineer, Northern District, will have less road work, and as a set-off, he will be given the charge of the Sewri Quarry and Crusher, the Nowroji Hill Crusher, the Love Grove Tarmacadam Plant and the Asphalt Plant. The Kurla-Deonar Railway will also be included in this District.

One advantage of dividing the City into two executive districts will be that the engineer officers concerned will be enabled to get into closer touch with the citizens' works in their charge and exercise closer supervision over the subordinate staff. Another advantage of having two districts operating side by side under separate agencies would be that each would profit by the improved methods introduced by the other. There would be emulation between the agencies employed and the Corporation will have opportunities of comparing methods and costs.

Re-distribution of Certain Specific Services.

97. Some readjustment of work and responsibilities, as specified below, will be necessary when the six Engineering Divisions are created.

As already explained, all subsidiary drains and sewers will, in future, be maintained by the Roads and Buildings divisions to prevent irregularities in the opening up of asphalt and tarred roads.

The working of the Worli Pumping Station and the control of the Shone System of Drainage, including the Compressor Stations, properly belong to the Drainage Department and should be transferred to the Deputy City Engineer, Drainage. Rules may be framed by the Chief Engineer, under the orders of the Commissioner for the technical advice and supervision of the engines and plant by the Deputy City Engineer, Mechanical Branch. He should give his advice in writing after inspection and it should be left to the discretion of the Deputy City Engineer, Drainage, to take such action as may be necessary.

An assistant mechanical engineer will be in direct charge of the Worli Pumping Engines and Compressor Stations, under the supervision of the Deputy City Engineer, Drainage.

The whole of the mechanical transport of the Municipality should be transferred to the control of the Deputy City Engineer,

Mechanical Branch with the exception of the Water Department lorries, which mainly operate outside Bombay. Such a concentration would enable the motor fleet to be properly supervised, facilitate overhauling and repairs, reduce unprofitable empty running, and make a comparison of running costs possible and valuable.

The maintenance and repairs of the several Municipal Buildings may be left respectively to the Engineers of the Northern and Southern Districts, within whose spheres the buildings may lie, unless for any special reason, it is proposed to entrust one or more buildings to the Architectural Engineer, who will be attached to the City Planning and Improvements Division.

The Architectural Engineer will ordinarily prepare all plans and estimates for new municipal buildings but their execution as in the case of repairs to existing buildings, will rest with the two District Engineers concerned.

How to deal with existing special divisions: Future City Planning and Improvements Division.

93. Since 1922, as already explained, two special Engineering Divisions have been created, one for Development Works and the other for the Tansa Main Completion Works.

The Tansa Main Completion Works are for the construction of new mains from the Tansa lake to the City. These works, which are estimated to cost Rs. 5.28 crores, were commenced in 1922 and are in charge of Mr. H. J. T. Smith, formerly Hydraulic Engineer to the City. It is understood that this special division will be abolished, on completion of the works in progress, about the end of 1925-26. Thereafter, with some small additions to the staff for the maintenance of the new mains, the Deputy City Engineer, Water Works, should be able to administer the entire water supply system of the City.

The municipal development works are under the supervision of the Senior Special Engineer, Mr. J. W. Mackison, C.I.E. The expenditure in this division has increased enormously within the past two or three years. This division will have to be maintained as a special division at least for a year or two more, till the development schemes now in hand are completed or are placed in a satisfactory position. As soon as it is found possible to reduce the yearly capital expenditure of new works to below Rs. 50 lakhs, it is desirable that the special division, *qua* special division, should be

abolished, and converted into a regular City Planning and Improvements Division and brought under the control of the City Engineer,

94. The Chief Engineer should work in close association with the City Planning and Improvements Division, since that division will be dealing with all new works, all matters requiring initiative in the engineering line, including the preparation and execution of new schemes and works of unusual importance which do not legitimately fall under any of the other divisions. The normal loan works expenditure, after all the urgent new works already sanctioned are carried out, will probably vary from Rs. 25 to 50 lakhs per annum. A large portion of these works should be executed by the other five regular departments concerned, only specially selected works being entrusted to the City Planning and Improvements Division.

It is understood that the question of the transfer of the City Improvement Trust to the control of the Corporation is under discussion. If and when the transfer comes about, it should be possible, or may be convenient, to entrust all large new works, which are beyond the capacity of the staff of the regular divisions, including the City Planning and Improvements Division, to the agency of the City Improvement Trust.

A new drainage and sewerage outfall scheme is under consideration. Whether a special drainage construction division is necessary or whether the life of the present Development Works Division should be prolonged for the purpose, will depend on the rate at which it is proposed to proceed with the scheme, in other words, on the extent of yearly outlay proposed. After the recent heavy expenditure on various development works, the Corporation would be well advised to proceed at a slower pace till there is a revival in trade or a perceptible increase in the City's revenue.

Other Connected Reforms.

Improvements in Ward Administration.

95. The Corporation have had in contemplation, from time to time, various improvements in the administration of the ward services, and recently have been considering the desirability of creating Ward Committees

or Municipalities, it is presumed, as consultative bodies. The first necessity of a ward at the present time is to provide a central building and to locate in it all or as many of the Municipal Ward Offices as possible. In most of the wards a building can be easily constructed on land belonging to the Corporation, or the existing buildings may be enlarged and improved for the purpose. There are a number of buildings owned by the Municipality in the several wards which may be disposed of. The sale proceeds of such buildings would provide part of the money needed for the central building. Where buildings are rented, they would be no longer required and the rents saved would meet an appreciable portion of the loan charges on the capital outlay involved. A central office would further result in indirect savings by reason of the reduction of repair costs, the closer supervision over the clerical staff, better co-operation of the different offices and more efficient administration generally. The probable net cost of providing Central Ward Offices, by utilising existing properties and facilities, may not exceed Rs. 10 lakhs. Where the area of municipal land available is small, it might be economical to erect a new bulding four or five storeys high. It is suggested that provision be made, thus early, for the outlay needed and an endeavour made to bring into existence all the Central Ward Offices required before the end of 1926.

96. The departments which should be represented in the Central Ward Offices are :—

(1) Roads and Buildings,

(2) Sanitation (including Malaria),

(3) Water,

(4) Drainage,

(5) Lighting,

(6) Licenses, and

(7) Assessment.

The Senior Medical Officer in the ward, who is also the Registrar of Births and Deaths, should have a representative in the Central Office, although for administrative reasons the Conservancy Department Stables and the Dispensaries may be located in separate buildings.

A common telephone should be provided for each ward and the officials should be able to communicate direct with all the principal municipal offices and institutions. There should be direct communication also between ward and ward. It may be stated in passing that in some of the western cities, notably Berlin, the major portion of the daily work and administration is transacted through the aid of the telephone, thereby avoiding delays and considerably minimising correspondence.

A consultation may be held between all the Ward Officers and Inspectors, once a week, to ensure co-operation and harmony and to promote the interests of all classes of local municipal work in the ward.

A Check Inspector may be employed in each ward, whose main business should be to note down all complaints and irregularities which may come to his notice and transmit the same to the local officer concerned as well as to the departmental head at the municipal headquarters. This Inspector should have no sort of authority over any of the officials. He would be merely a collector of information and grievances and he would submit his weekly journals to, and take his orders from, the Municipal Commissioner or his Deputy direct. I am suggesting this system of check inspection and reporting from a personal experience of its efficacy in stopping irregularities and corruption on a large engineering work.

Systems of Accounts, etc.

97. The present system of departmental accounts is defective in that the departmental heads have no means of ascertaining day by day the progress of expenditure on works in their charge. A tabulation book is maintained in most departments. This records only actual payments and does not give a complete idea of the liabilities incurred and not paid. The check of the Accounts Departments upon expenditure is limited to seeing that proper sanction exists, that the bills and vouchers are arithmetically correct and that the budget provision is not exceeded. Within the limits of the budget grant a department can spend what it likes, and there is no effective means of ensuring that the expenditure is being incurred in a useful and economical manner.

In the case of road repairs, it is stated that the members of the Corporation and the public utility companies largely influence

expenditure. Repairs are not executed on regular estimates previously sanctioned according to the actual needs of the roads.

98. The question of Account Reforms will be elaborated in a later report, but the essential points which have to be borne in view, are the following :—

(1) Detailed appropriation and contract ledgers should be maintained in each department recording all liabilities from the moment of their inception and not merely when a bill is received.

(2) These detailed ledgers should be audited by the Accounts Department monthly and a statement showing the progress of expenditure against each grant maintained.

(3) Any audit objections of a technical or administrative character should be dealt with by the Chief Engineer or the Municipal Commissioner.

(4) All works of maintenance and repairs should as a rule be carried out on the authority of detailed estimates prepared in advance by the assistant engineers or sub-divisional officers and sanctioned by the various sanctioning authorities, such as Deputy City Engineers, Chief Engineer, Municipal Commissioner, the Standing Committee or the Corporation, according to the amount and character of the estimates. The mere sanction of the Budget should not, of itself, be held to be sufficient authority for expenditure on works and repairs.

(5) When proposals are being submitted to the Corporation for works to be executed out of loan monies, the procedure adopted in England when a local authority is applying to the Ministry of Health for sanction to borrow money, might be followed, as closely as possible. Proper plans, reports and *detailed* estimates, signed by the officers responsible, should be submitted, and accompanying should be a statement, signed and certified by the responsible Engineer Officer and the Chief Accountant, giving brief particulars of the nature and cost of the work, an estimate of the additional cost per annum of the maintenance of the works proposed to be carried out, existing debt and sinking fund

charges, the additional debt and sinking fund charges on the proposed expenditure, the outstanding loan debt, the assessable value of the City, the present percentage of the general and other taxes, the additional percentage which the proposed outlay will involve and any other particulars that may be deemed desirable. The full financial liability involved and the estimated ultimate loss or gain should be clearly given. Any changes of design which may involve a substantial increase of liability or excess over estimate, should be approved by the Corporation before they are given effect to.

(6) Once in every six months at least the accounts sections of the Engineering Departments should be inspected by the Chief Accountant or his Deputy, so as to ensure that the work is being carried out in an efficient manner.

(7) The departments should know, from week to week, what the various items in each of their estimates are costing them and, from month to month, how expenditure is progressing against each such estimate as a whole.

Office Equipment and Efficiency.

99. While the subject of office equipment and efficiency is one of general applicability to the entire municipal administration, there are one or two points of special interest which require notice in connection with the technical work of the engineering departments. There are at present in each office separate staffs for surveying, drawing and tracing. It would be more economical and it would result in increased efficiency, if all these several staffs were combined and centralised. That is to say, for all the engineering departments there should be :-

(*a*) A common surveying staff,
(*b*) A centralised drawing office,
(*c*) A centralised tracing and blue-copying office,
(*d*) A central typing section, and
(*e*) A central correspondence records, and despatching section.

A fuller description of these suggestions will be compiled at a later stage of the enquiry.

100. Owing to the recent rush of expenditure, perhaps, the amount of time and attention bestowed on the preparation of estimates before the works are actually put in hand, has been inadequate. In a multiplicity of counsellors there is wisdom. In the case of the larger engineering projects it would be a safer practice for the Corporation not to place too much reliance on the opinion of a single expert, however eminent, but to obtain criticism and advice from several before deciding to proceed with their construction.

Engineering Advisory Council, etc.

An Engineering Advisory Council consisting of five members, two of whom may be from the municipal staff and three from engineers in practice, including Government Engineers, would, if brought into existence, be a useful advisory body. The Council might meet ordinarily twice a quarter and be paid their travelling expenses, if any, and a fee for attendance. Such a Council will keep track of large schemes in preparation, or under construction, and help the Corporation to maintain a correct sense of proportion in their engineering enterprises and to frame programmes of construction in consonance with the City's needs and resources.

It should be possible for the senior engineers of the Corporation to meet at regular intervals to study each other's larger problems and supply material for the decisions of the proposed Engineering Advisory Council.

There should be a common library for all the engineering departments located in a separate room specially set apart for the purpose with a clerk in charge. An assistant engineer in one of the engineering departments might be entrusted with the general supervision of its working.

Summary.

101. My conclusions may be briefly summarized as follows :—

(1) The public works of the City should be divided into six executive divisions, each in charge of an officer bearing the designation "Deputy City Engineer." The six divisions will be supervised by a Chief Engineer who will be in administrative charge of the entire engineering work of the City.

(2) Works, under both capital and revenue accounts, should be executed ordinarily by the six executive divisions mentioned.

(3) The special division for Tansa Main Completion Works will, it is understood, cease to exist on completion of those works by about the end of 1925-26.

(4) The work of the Special Engineer, Development Works, will be correspondingly reduced when the six new divisions are constituted, and many of the works connected with the general services, now under the Special Engineer, are transferred to them.

(5) This Special Engineer's division may continue to exist as a separate division so long as the yearly expenditure after the transfer of the works to the regular divisions, is maintained at or above Rs. 25 lakhs. When the outlay falls below this limit, it may be converted into a City Planning and Improvements Division. Till that time arrives, the special division will be performing also the duties expected of the City Planning and Improvements Division described in this report.

(6) In the case of all large project estimates, special provision should be made for *independent* check of design and estimates and scrutiny of technical work.

(7) Special works which, for technical or other reasons, cannot be entrusted to any of the regular divisions, may be executed by the City Planning and Improvements division with the aid of a Resident Engineer in charge

(8) In the course of redistribution of the engineering staff a further reduction of numbers and cost may be found feasible. The position in this respect will have to be reviewed once every six months for two or three years to come. Special steps will be necessary also to strengthen the staff by improving the quality of the recruits.

(9) The details of the scheme and the various reforms suggested, including the redistribution of subordinate staff, require careful elaboration before effect is given to these proposals.

(10) The new Chief Engineer, when appointed, should be entrusted with the responsibility of giving effect to these proposals in consultation with the Retrenchment Office and with the approval of a Speical Committee of the Corporation on which Engineers should be adequately represented.

102. This report being connected with reforms deals, from its very nature, with the defects of the City engineering organization rather than with its good points. It is but fair to add that despite these defects, engineering works of great magnitude and importance have been projected or are under construction and they are being pushed forward with ability and energy by the engineers now in control of those works. It is not necessary to approve of every feature of the recent engineering development to recognise the fact that these works will bring benefits of enduring value to the health and amenities of the City.

103. The Engineering departments control an expenditure of over Rs. 60 lakhs a year on ordinary Municipal Public Works. The loan charges, which amount to Rs. 124 lakhs, are directly due to the works constructed by them. The departments are thus in a manner responsible for nearly 60 per cent of the Municipal expenditure, and a reorganization of these departments on up-to-date business lines cannot but be a matter of special concern to the Corporation.

104. I have discussed these proposals with the Municipal Commissioner and more than once with the senior officers of the engineering services and I desire to acknowledge the courtesy and help received from them and their staffs. The intimate knowledge possessed by Mr. T. H. Bird, Secretary to the Retrenchment Enquiry, of the inner working of the engineering departments, has been of special value in framing these proposals.

BOMBAY, M. VISVESVARAYA.
23rd December, 1924.

CHAPTER XI

CONTROL OF LOAN WORKS EXPENDITURE.

Debt and debt charges at present time.

105. The gross Municipal Debt at the beginning of the current official year stood at Rs. 14.43 crores and it is estimated that the loan charges for the year, debitable to revenue, will be about Rs. 1.11 crores. On 1st April, 1925, the position as near as can be foreseen at present, will be :—

	Rs.	
Gross debt	18.57	Crores
Net debt, after deducting Sinking Fund accumulation	15.62	,,
Loan Charges	1.24	,,
Rateable value of property	11.38	,,
General Tax (1925-26)	1.30	,,
Total Municipal Income (1925-26)	3.26	,,

The gross debt has grown from Rs. 6.49 crores in 1913-14, to Rs. 8.09 crores in 1919-20 and to Rs. 18.57 crores in 1924-25. In 1913-14, the year before the war, the loan charges amounted to Rs. 34.34 lakhs and the proceeds of the general tax to Rs. 46.41 lakhs. In 1919-20, the first year after the war, the corresponding amounts were Rs. 43.05 lakhs and Rs. 74.65 lakhs respectively. The loan charges have since risen so rapidly that within a year or two they will absorb the entire proceeds of the general tax.

The limit of borrowing powers permitted by the Municipal Act is double the assessed rateable value of property. By 1st April next, this limit will have risen to about Rs. 22.76 crores and the gross debt to Rs. 18.57 crores. The margin of borrowing powers then left will be the difference namely, Rs. 4.19 crores, and this margin is being rapidly trenched upon.

106. Various new works and developments have been sanctioned by the Corporation during the past four years, the aggregate value of which amounted to Rs. 6.68 crores. Some of these were necessary to make good the accumulated requirements of the war period. A liberal expenditure was encouraged by the short-lived trade boom between the years 1920 and 1922. The boom period has passed away and a trade depression, perhaps the worst known for half a century, has taken its place. The expenditure on loan works is steadily growing, while the value of taxable property

shows no striking increase. To quote the Municipal Commissioner:—"We are faced with conditions very different from those which prevailed when the Corporation accorded their sanction to the various development schemes." The Chief Accountant in his Administration Report for 1923-24 has remarked: "The rate at which the expansion in expenditure is taking place obviously demands a close scrutiny with a view to economising our revenue expenditure and placing the financial condition on a satisfactory basis."

The Problem Stated.

107. It is admitted on all hands that the Corporation have been sanctioning new works a little too freely within the past three or four years and that the time has arrived for a survey of the City's financial position and a readjustment of its activities to the altered conditions of the present day. What is the precise extent of the Corporation's commitments in respect of loan works? How does the City's indebtedness compare with its assets and income? Whether, viewed in a proper perspective, the increased conveniences and amenities which are being provided correctly represent the most pressing needs, or whether there are also other demands for loan money? What restrictions are necessary in order that the expenditure may be kept within reasonable bounds and what safeguards should be provided to protect the City's permanent interests in this respect in future? These questions represent a problem to which a solution is attempted in the present report.

Works in progress or proposed.

108. The works for which loan money is being applied are connected with the development of the City and the improvement of its services. They are being carried on by three main agencies under the control of the Municipal Commissioner:—(1) Development Schemes and various improvements to city services, by the Special Engineer, Development Works; (2) Water Works extensions, by the Special Engineer, Tansa Completion Works; (3) Improvements and new works of small size connected with the city services, by the Municipal Executive Engineer and the Hydraulic Engineer.

109. The works entrusted to the Special Engineer, Development Works, are: clearance and reconstruction work in Fort South, including the Hornby Road—Ballard Pier Scheme; development of the Mahim area; construction of overbridges in

the northern part of the City and filling in the Storm Water Reservoir at Mahaluxmi; and construction of architectural buildings for the city services, and new drains and sewers in various parts of the City.

The clearance and reconstruction works in Fort South, with the exception of the Hornby Road—Ballard Pier Scheme, are practically completed, only a small portion of road construction now remaining. The acquisition of the land for the Hornby Road—Ballard Pier Scheme is nearly complete, but the question of demolition of the existing buildings is under the consideration of the Corporation. The development of the Mahim area is now being delayed for want of funds. Nearly all the land required has been notified for acquisition and some of the roads and sewers have been completed. The filling in of the Storm-Water Reservoir is still in progress.

Three large overbridges at Dadar, Parel and Victoria Road are being constructed and one more at Clerk Road is under consideration. A large amount of building work is under way, the principal items being the extension of the Municipal Offices, a new school at DeLisle Road, extension at Arthur Road Hospital, quarters for the labour staffs of the Conservancy, Pumping Station, and Fire Brigade Departments, underground convenience at Bhatia Bagh and two new fire stations. A number of sewers and drains in various parts of the City are in course of construction, mostly in the northern area. Several are a part of the Mahim Development Schemes. The Special Engineer, Development Works, is also having prepared, under expert advice, plans and estimates for a new main drainage outfall scheme.

110. Extensive additions to the water works of the City are in progress in the shape of new steel water mains intended for bringing into the City about double the quantity of water now supplied. The total estimated cost of the new works is Rs. 5.69 crores, of which Rs. 97 lakhs will remain unexpended on 1st April, 1925.

111. The Executive Engineer's Department is chiefly concerned with the maintenance and repairs of existing works, the only important new works undertaken being the resurfacing and improvement of roads. Extensive operations in this connection have been in progress for the past two or three years.

112. For the purpose of appraising their distinctive character, and value to the City in relation to the outlay, all loan works may be classed under three distinctive groups, *viz* :—

Loan Works of three classes.

Self-supporting Works,
General Services, and
Development Schemes.

Self-supporting Works are those which, like " Water Works" and " Markets and Slaughter-houses " produce at least enough income or profit to pay for the original cost as well as for maintenance.

Development Schemes are connected with the opening up of congested areas in the City, and the extension of roads, drainage, water supply, etc., to unoccupied areas, with a view to enabling new houses and property to spring up in those areas. In the case of the schemes at present in progress, it is expected that the cost of development will be met, in great part, from the proceeds of land offered for sale.

Under General Services may be classed all works calculated to facilitate the work of Municipal Administration, and promote the health, convenience and amenities of the population, such as: office buildings, school houses, fire service stations, ward offices, roads, parks and parkways, water mains, drains and sewers, etc.

EXPENDITURE FOR THE NEXT SIX YEARS

113. Table IV appended, gives the estimated cost of works already sanctioned and the expenditure expected against these up to 1st April, 1925. The same table shows, separately, the estimated cost of works proposed by the Engineering Department, but not sanctioned. The following figures are abstracted from the table :—

Estimate of the City's requirements.

(Figures in rupees : crores)

Heads.	Unspent balance on works already sanctioned.	New works proposed but not sanctioned.	Total requirements on 1-4-1925.
1. Self-supporting Works ..	1.95	.47	3.42
2. General Services	1.65	7.94	9.9
3. Development Works	1.19	....	1.19
Total ..	4.79	9.41	14.20

Although the total ultimate expenditure is expected to be Rs. 14.20 crores, it is proposed to spend only Rs. 9 crores in the first six years commencing from 1st April, 1925.

The same table shows that the Corporation are committed to an expenditure on development works and water works, taken together, to the extent of Rs. 3.11 crores. The next most important works are (1) the new drainage and sewerage scheme and (2) roads and overbridges, on which an outlay of Rs. 3.40 and Rs. 1.27 crores respectively, is proposed in the six-year period referred to.

First Alternative.

114. After discussion with the Retrenchment Officer, Mr. C. M. Correa, and myself, the Special Engineer, Development Works, has accepted the view that an outlay of Rs. 9 crores (Table II Col. 11) should suffice during the next six years, distributed as under :—

1925-26	Rs.	3.10 Crores.
1926-27	,,	1.60 ,,
1927-28	,,	1.55 ,,
1928-29	,,	1.30 ,,
1929-30	,,	1.00 ,,
1930-31	,,	0.45 ,,
Total	Rs.	9.00 crores.

Provision made on the above scale will meet with the approval of the Engineering Departments and may therefore be regarded as being on a *liberal scale.*

It will, however, be seen by reference to Table III (A), that were such a proposal sanctioned, the legal debt limit would have to be sightly extended in order to raise the requisite funds, and the heavy loan charges entailed would lead almost from the commencement to deficit budgets necessitating additional taxation.

Second Alternative.

Table III (B) provides for an outlay of Rs. 6 crores only during the six-year period in question, distributed as under :—

1925-26	..	Rs.	1.50 Crores.
1926-27	..	,,	1.00 ,,
1927-28	..	,,	1.00 ,,
1928-29	..	,,	1.00 ,,
1929-30	..	,,	0.75 ,,
1930-31	..	,,	0.75 ,,
Total		Rs.	6.00 crores.

Under this proposal the debt limit will not be exceeded. Although the loan charges will be comparatively heavy, there will be equilibrium between the revenue receipts and expenditure from year to year. This alternative may be termed a "*moderate scale* of expenditure."

Third Alternative.

Yet a third alternative on a *restricted scale* of expenditure is also proposed. It provides for an outlay of Rs. 4 crores only during the six-year period, distributed as follows :—

1925-26	..	Rs. 1.50 crores.
1926-27	..	.. ,, 0.50 ,,
1927-28	..	.. ,, 0.50 ,,
1928-29	..	.. ,, 0.50 ,,
1929-30	..	.. ,, 0.50 ,,
1930-31	..	.. ,, 0.50 ,,
	Total	Rs. 4.00 crores

This provision will, if accepted, lead to actual reduction of taxation besides leaving ample margin in respect of borrowing powers at the end of the six-year period. Under this restricted scale the financial position will be, as far as can be foreseen, absolutely safe in every respect.

Assumptions made in preparing the forecasts.

115. In constructing Tables III-(A), III-(B) and III-(C), the assumption is made that the assessed rateable value of property will increase every year by Rs. 30 lakhs. Last year, responsible officers of the Municipality estimated this increase at Rs. 75 lakhs. No liabilities on account of development schemes are included in these tables because, up to the end of 1925-26, it is proposed to meet the interest charges on Development Capital from the Land and Buildings Fund and thereafter from the sale proceeds of land due to the schemes themselves. These latter will be credited to the Development Fund after the money borrowed from the Land and Buildings Fund is first repaid. The Land and Buildings Fund is being utilised in this way in order to give relief to the tax-payer as long as possible or till the Development Fund is able to meet all further charges on account of the schemes.

It is assumed that from 1926-27 recoupments from the Development Schemes would not be less than Rs. 20 lakhs per

annum and that they would not only pay interest charges on the capital but also help rapidly to redeem the loans.

It must be remembered that buildings will begin to spring up, and properties to develop, in the areas newly laid out, and when this happens and the work of the development schemes begins to bear fruit, the rateable value of property will increase rapidly and bring appreciable additions to the general tax. This may be held as a set off against the ultimate losses from the development schemes, which may amount to anything from Rs. 30 lakhs to Rs. 1 crore. The losses will be small in proportion to the improvement that may take place in trade conditions and in the capacity of the citizens to invest in land and buildings in the immediate future.

Indebtedness compared.

116. It may be interesting in this connection to compare the present debt position in Bombay with that of sister cities in India and other parts of the world.

The yearly revenue expenditure of Calcutta and Bombay is roughly Rs. 25 and Rs. 26 respectively per head of population. The per capita debt, including water supply, is Rs. 67 and Rs. 128 respectively, showing that, although the total expenditure of the two cities is about the same, Bombay has nearly twice the debt of Calcutta.

Leaving out the debt contracted for trading services, in which water supply is included, the debt per capita in Bombay compares with those of other English and Foreign Cities, as under:-

			Rs.
Birmingham	(England)	1922-23	79
Liverpool	(,,)	1919-20	74
Manchester	(,,)	1919-20	124
Tokyo	(Japan)	1922	33
Bombay	(Estimated)	1924-25	83

Having regard to the low economic status of the average citizen and the character of the works on which borrowed money is being spent, it is impossible to escape the conviction that the debt of Bombay is already as high as it should be.

Security behind debt.

117. It has been assumed above that the net loss on the development schemes may amount to Rs. 30 lakhs to Rs. 1 crore when the works are all completed in three to four years time. Loss

or no loss, the Corporation have put their hand to the schemes and they have to see them through. The capital invested in development schemes is likely to be released early. For our present purposes, the expenditure on these might be left out of consideration. The loans standing against Water Supply and Markets do not impose any direct burden on the taxpayer, and it is usual to exclude such loans from the regular Municipal Debt. If, from the total debt of Rs. 18.57 crores on 1st April, 1925, Rs. 2.50 crores and Rs. 8.47 crores spent on these two classes of works, respectively, are deducted, the net debt against the city services will be only Rs. 7.60 crores. In this calculation no allowance is made for the Sinking Fund accumulation.

Against this, we have Municipal properties comprising buildings, public conveniences, bathing places etc., which have a marketable value, estimated by the Municipal Executive Engineer at Rs. 2.83 crores. There is Municipal land besides, valued by the same officers at Rs. 7.80 crores, making a total marketable property valued at not less than Rs. 10.63 crores. No account is taken of the road works, drainage works, pavements, set-backs, etc., which form other intangible assets.

The main security for the debt is the power of the Corporation to tax property in the City, the assessed rateable value of which at present is Rs. 11.82 crores. It is estimated that this will go on increasing at the rate of Rs. 30 lakhs per annum. The Corporation are now levying a rate of 11 per cent on the rateable value and they have committed themselves, although they did so in more prosperous times, to an increase, if necessary, of the rate to 17 per cent. This reserve of 6 per cent will mean an addition to the general tax of about Rs. 71 lakhs, sufficient to meet interest and sinking fund charges on a debt of about Rs. 9 crores more if necessary. It is evident that the City possesses abundant security for the funded debt at present outstanding.

Commercial aspect of loan works.

118. Enquiries show that correct "assets and liabilities account" of Municipal properties is not kept, no periodical stock-taking is attempted and but little attention is paid to the commercial side of loan works transactions generally.

If an improvement in this respect is to be looked for, for the future, certain new commercial procedure and practice commonly observed in Foreign Municipalities should be introduced. The accounts of remunerative schemes should be separated from those of non-remunerative ones. A separate fund should be maintained for each self-supporting scheme like the Water Works and Markets, with separate capital and revenue accounts, and a balance sheet.

The commercial aspect of every scheme put forward for execution should be investigated and proper forecasts of financial results, *i.e.*, of expenditure, receipts, net profit or loss, permanent increases of revenue, maintenance charges, etc., should be given. In the case of non-remunerative schemes, in addition to such of the above information as applies to them, a full description of the benefits likely to accrue should be given, for comparison with actual results after the works are completed.

119. A programme of loan works, together with financial forecasts, should be maintained for five or six years in advance. These may be revised once every year and adjusted to changing conditions.

The interest and sinking fund charges on loans contracted for the City services should be debited to the respective heads concerned, both in the budget and in the final accounts. This is the practice in British Municipalities and it will help to bring forcibly to the notice of the Corporation what amount each service head is costing them.

Every item of expenditure sanctioned should have a definite relation to the service head concerned and every sanction a correct bearing on the resources of the City. Only thus can the expenditure and the liabilities of the Corporation be kept under control, and provision made for the City's needs from time to time, according to the capacity of the people to pay for them.

Other uses for loan money.

120. We have already seen that the borrowing powers of the City amount to about Rs. 24 crores. Not all these are intended for works in brick and mortar. Loan money is needed for developments of various kinds in other directions, for welfare work and multifarious health and wealth-producing activities.

We have seen that the present loan charges amount to nearly 40 per cent of the total revenues of the City. A mortgage of the yearly revenues to this extent leaves very little to provide for the current needs of the population. If a saving can be effected, it might be profitably utilized for the reduction of town duties, with an eye to diminishing the cost of living.

There are various ways in which the Municipality can help housing schemes with loan money. Money might be laid out on more school buildings with necessary equipment, on technical schools and workshops for training workmen for industrial occupations, and on allied institutions for equipping persons for other employments. Money is required for public libraries. Hotels and lodging houses might be provided or subsidized. Capital might be utilized on Municipal-owned public utilities and trading concerns and in laying out new industrial suburbs. City Municipalities in the West do this and issue attractive pamphlets to advertise the facilities they are prepared to offer to persons who intend to start new industries. In Bombay such facilities seem to exist in an exceptional degree just at present, on account of its prospective water supply, and its electric supply resources. Money might be spent in organizing exhibitions. Exhibitions which are frequently held in Western Cities often pay their own way. Some capital might be spent in subsidizing cheap transportation. More parks and recreation grounds might be added in localities easily accessible to the children of the poorer classes.

These considerations are urged to show that there are other uses besides public works, which loan money, and the savings from loan charges, when they accrue, might be put to and which should receive the serious attention of the City authorities.

One cannot take too critical a view, however, of the recent expenditure when one knows that if the development and engineering schemes referred to had not been put through, no alternative undertaking would have taken their place. The Corporation have got something done for the City, something accomplished, and that is a great consideration by itself.

A Loan Works Programme.

121. The Corporation have to examine their income, their assets and liabilities and the immediate and future needs of the City in all spheres of Municipal activity and prepare a programme

of expenditure for the future. They have now before them three alternative proposals of expenditure on Engineering Works and they have to choose one of them and adhere to it at least for one year at a time. The five year programme may be reviewed and revised once a year at Budget time but once revised, it should be adhered to at least till the next revision.

122. In the Preliminary Report on Municipal Retrenchmen and Reforms, six points were raised as requiring consideration in working out a Loan Works Programme and these will be briefly referred to here :—

(*i*) *Programme of Works not considered as urgent.*— If the moderate scale of expenditure involving Rs. 6 crores in the 6 years ending 1930-31 referred to above be accepted all reasonable demands for the 3 classes of works will have been provided for. The expenditure on Development Works and Tansa Completion Works is inevitable. As regards other items, the Engineering Departments may be requested to prepare detailed statements of works and a review of the City's requirements in consonance with the scale of expenditure decided upon.

(*ii*) *Incomplete estimates and plans to be completed.*— This is a matter for the Engineering Department to take up. For every important project a full report, description, an abstract of estimate, and specifications should be prepared and these should be checked independently from the technical and accounts point of view. All important estimates should be dealt with in this way.

(*iii*) *Grouping and Classifications of Capital Accounts Works.*— It may be found convenient to maintain the classifications under the 3 heads given in paragraph 112 above and in Table II. The estimates for individual development schemes should include all subsidiary works, such as drainage and water supply and should give a clear forecast of receipts and expenditure so that the Corporation may get a connected idea of the size and scope of each scheme, its costs and benefits to the City as compared to the outlay involved.

(*iv*) *Preparing a financial forecast for each scheme.*— A forecast of financial results should be attached to each scheme, signed by the Engineer and the Chief Accountant, showing the recoupment and returns expected and the increased revenues which the scheme may be expected to bring in in due course.

(v) *Programme of Capital expenditure and forecast of financial results for five years.*—This programme and forecast are given in the present report. It is recommended that a similar review be prepared every year so that the Corporation may always have a general programme before them into which they would be able to fit in their sanctions from month to month without risks of over expenditure.

If a work is not remunerative, very full explanation should be demanded before the Corporation are satisfied as to its necessity.

(vi) *Fixing the legal limit of debt:*—It is said that once a debt is created it constitutes a general mortgage on the City's assets.

Recommendations.

123. The expenditure on Municipal Public Works has been going on at a very rapid rate and the loan charges have grown enormously within the past 4 years. The Corporation, whether under the advice of the executive or of their own initiative, have been sanctioning loan works so rapidly that no clear statements of aggregate sanctions and commitments were available in respect of these works until they were prepared in connection with Retrenchment Enquiry.

Although the city authorities have been raising loans at an unusually rapid rate, the municipal credit is still good. A substantial portion of the debt is on account of the water works, which is in a sense a self-supporting work.

The following is a concise statement of points on which action is necessary:—

(1) A Loan Works Programme should be prepared and maintained for 5 years in advance. It should be revised and brought up-to-date once every year at the time of passing the Budget, but no changes should be made in the programme, except for grave reasons, in the interval between any two revisions.

The actual value of every proposed new work to the City, as a whole, should have careful consideration before undertaking new commitments.

New works should not be brought in as urgent business for sanction, unless they are absolutely necessary.

(2) In regard to future expenditure on Loan Works, three alternative proposals are suggested for the six years commencing from 1925-26; (1) on a liberal scale involving an outlay of Rs. 9 crores, (2) on a moderate scale, with an outlay of Rs. 6 crores and (3) on a restricted scale, requiring only Rs. 4 crores. The adoption of one or the other of the two latter is recommended. A smaller outlay than Rs. 4 crores has to be ruled out, if losses likely to result from interference with past commitments of the Corporation are to be prevented.

(3) The Loan Works estimates or Budget should be approved after a discussion of the needs of the City, the capital programme, the debt charges and the bond issues, and their relation to the financial position of the City kept in view. A separate report on the loan fund and the sinking fund should be issued at the close of each official year.

(4) The Engineering and Accounts Departments should be held jointly responsible for maintaining correct statements of sanctioned works, revised from quarter to quarter, and signed by the Chief Accountant and the Heads of the Engineering Departments concerned.

(5) In the interests of sound design, no less than of efficiency and economy of execution, projects should be prepared in greater detail than they are at present, on the lines on which Government schemes are prepared. In substance, the code rules of the Government Public Works Department, might, with necessary changes, be adopted here with great advantage. The projects should be printed, and made available to the Councillors and the public, an interval of at least three months being allowed to lapse between submission of complete schemes and actual sanction by the Corporation, to give every opportunity for healthy criticism.

(6) A forecast of financial results should accompany every new scheme, or if the work is not of a remunerative character, a full description of the benefits likely to accrue, so that the utility of the scheme in relation to the expenditure proposed may be considered and weighed before the scheme is sanctioned. It is not sufficient to include such description in the application asking for sanction.

(7) The internal audit should be rendered efficient and effective, which it is not at present, by prescribing suitable rules or standing orders for the purpose. The annual report on loan fund and sinking fund referred to in clause (3) above should contain a review of the financial position of the Corporation in relation to its assets and the security offered by the revenues.

(8) A small staff may be permanently maintained in the Accounts Department which, working in co-operation with the Engineering Departments, should undertake the responsibility of reviewing every new scheme from a commercial point of view before it is sanctioned, watch the steady growth of the Municipal assets and property and safeguard the commercial interests of Municipal undertakings generally.

(9) In any programme of Loan Works Expenditure the requirements of Primary Education should not be lost sight of. If education is to be extended as rapidly as the circumstances demand, large sums of loan money will be needed for school buildings and the cost of maintenance of the educational institutions will swell the revenue expenditure. It might soon become necessary to earmark a portion of the general tax for this purpose, or levy a separate educational cess.

Attention is also invited to the following subsidiary suggestions :—

(1) Correct complete statements of lands acquired under the Development Schemes should be maintained.

(2) The recoupments from sales of land, etc., derived from the Development Schemes should be utilized for pushing forward to completion the more promising ones among them so that the schemes may be completed one by one, without throwing any further appreciable burdens on the tax-payer on their account.

(3) In future, schemes of development of new areas should include the cost of all works connected with them,

such as water supply, drainage, etc. The total estimated liabilities of each scheme should be known before it is sanctioned and the accounts maintained during execution should also show all such liabilities.

(4) Repayment of loans raised for self-supporting works like the water supply, might be spread over a longer period than 30 years to reduce the burdens on the present generation. In this case the depreciation charges should be regularly debited to the revenue account.

(5) The practice of making provision in the Loan Works Budget for works in excess of the sanctioned estimates, without the Corporation's previous sanction, should be discontinued. It is understood that action has been taken already in this matter.

(6) When an excess over a sanctioned estimate is apprehended, the circumstances should be brought to the notice of the Commissioner and immediate steps taken to submit a revised estimate and obtain sanction of the proper authority.

The Officer concerned should not delay the submission of revised estimates until, as has often been the case, the sanctioned amount is expended.

(7) The practice of transferring loan funds obtained for one service or purpose to another leads to loose methods of financing and to considerable confusion and complication in calculating the interest and sinking fund charges, and should be avoided as far as possible.

(8) The execution of loan works under general city services should ordinarily be entrusted to the departments concerned and not to a special staff.

(9) When works are constructed or carried out by direct labour, cost accounts should be maintained, and proper records kept of all plant and machinery used on the works.

124. I am indebted to Mr. J. W. Mackison, C.I.E., Special Engineer, Development Works, for much useful information regarding the requirements of the City for which capital expenditure would be needed in the near future. Mr. T. H. Bird has made various constructive suggestions and, through the courtesy of the Commissioner, I have had valuable assistance from Mr. V. V. Shaligram of the Accounts Departments, in the compilation of the Tables and the scrutiny of the various recommendations from an accounts point of view.

BOMBAY.
9th January 1925. M. VISVESVARAYA.

PART III

APPENDICES

APPENDIX I.

Complete Programme of Work.

Serial No.	Particulars.	Remarks.
	I	
	Retrenchment and Reform in 6 groups of Departments.	
1	Administrative	In progress
2	Financial	„
3	Engineering	Complete.
4	Public Health	Complete
5	Education	In progress.
6	Special and Miscellaneous	Complete.
	II	
	Restricting Loan Charges.	
7	Postponement of works not considered urgent	Complete.
8	Completion of all estimates and plans still incomplete	
9	Grouping and classification of all Capital Account Works under the main heads— ..	
	(i) Development Schemes	
	(ii) City Services	
10	Preparation of financial forecasts for large schemes	
11	Programme of Capital Expenditure and forecast of financial results for 5 years ..	
12	Fixing limits of Municipal Debt and Loan Charges for immediate future	
	III	
	Administrative Reforms.	
13	Classification of Officers into grades— ..	Complete.
	(i) Administrative	
	(ii) Executive	
14	Correct classification of Municipal Departments	
15	Introducing new system of control by Executive Committees	
16	Improving Ward Organization	
17	„ Office Accommodation	In progress.

Serial No.	Particulars.	Remarks.
18	Time-saving appliances and methods for office work	In progress
19	Central Board of Appointments	To be undertaken.
20	Periodical checks for efficient working of Municipal Departments	,,
21	Preparation of a Municipal Year Book	In progress.
	IV	
	Accounts Reforms.	
22	Appointment of a new Controller of Accounts	Complete.
23	Re-organization of the Accounting System of the Municipality	In progress.
24	Valuation statement of Municipal properties, lands, buildings, etc.	Report prepared.
25	Valuation statements of machinery and plant, tools, stores, dead stock, etc. (by Departments)	,,
26	List of Revenue-yielding properties and amount of annual revenue derived ..	,,
27	Statement of assets and liabilities of the City Corporation	,,
28	Separate accounts of trade undertakings like Water Works and Markets	,,
29	Preparation of an Accounts Manual ..	To be undertaken.
30	Opening a Statistical Section in the Accounts Department	,,
31	Additional recommendations suggested as a result of the further investigations in progress	
	Among others—	
	(i) Remodelling form of Budget ..	In progress.
	(ii) ,, ,, Annual Accounts	,,
	(iii) Codes and Manuals for Engineering and Public Health Departments..	To be undertaken.
	V	
32	**Final Report**	Complete, so far as relates to progress up to 31st January, 1925.

APPENDIX II.

Subject: **Retrenchments in the Executive Engineer's Department (General Branch).**

1. The cost and number of employees of this Branch, excluding the Executive Engineer, compares as under:—

	Number	Cost Rs.
1913-14	48	63,164
1920-21	61	64,243
1924-25	30	44,652

The figures for 1913-14 and 1920-21 include the Mechanical Engineer, and the Architectural Section. In the middle of 1920-21 the Architectural Section was transferred to the Special Engineer's Department, and from 1921-22 the salary of the Mechanical Engineer has been charged to the Pumping and Compressor Stations. Excluding these items, and five clerks who were engaged on the clerical work of the Architectural Section, the correct comparison would be, approximately, as follows:—

	Number.	Cost. Rs.
1913-14	21	17,650
1920-21	25	20,000
1924-25	30	44,652

These figures show that, whereas in the past four years the number of employees has increased by 20 per cent, the cost has increased by 123 per cent.

2. An investigation of the work actually done by each member of the staff shows that several of the clerks are really employed on work which relates solely to the Special Engineer's Department, and at least three clerks should be transferred from the General Branch to the Special Engineer's Staff. To this the Executive Engineer agrees.

It is presumed that if the Loan Works programme be curtailed, the staff of the Special Engineer's Department will be correspondingly reduced, and it is therefore necessary that such staff should be kept entirely separate and distinct from the permanent revenue staff.

3. One clerk is employed solely to take charge of the stationery, and the work he has to do does not take more than

two hours per day. It is suggested that this post be abolished, and the charge of the stationery given to either the Head Clerk, or the Senior Record Clerk. The Executive Engineer has approved of this suggestion.

4. The post of Assistant to the Personal Assistant was created in 1923-24, and is held by a Sub-Engineer on a salary of Rs. 300 per mensem. The Executive Engineer agrees to the abolition of this post.

5. To summarise, the retrenchments agreed upon by the Executive Engineer are :—

1 Sub-Engineer.
1 Clerk.
1 Lascar.

and a transfer to Loan Works of 3 clerks, which, with some other minor cuts, show a saving on the 1924-25 Budget of Rs. 9,195 and on the 1925-26 tentative Budget of Rs. 8,850.

T. H. BIRD
Secretary,
Retrenchment Enquiry.

24—11—24.

APPENDIX III.

Subject:—**Retrenchments in the Executive Engineer's Department (Buildings Inspection Branch).**

1. Comparative figures of the employees in this Branch, and the cost, are as under:—

POSTS.	*1913–14		1920–21		1924–25	
	No.	Cost.	No.	Cost.	No.	Cost.
Supervising staff ..	5	19,800	5	17,760	14	80,000
Inspectorial ,, ..	50	75,480	28	37,435	24	49,620
Surveying ,, ..	10	4,260	11	6,925	13	15,420
Clerical ,, ..	90	41,700	31	21,842	32	42,720
Menial ,, ..	81	12,240	53	8,967	61	11,436
Subordinate ,, ..	84	17,892	26	5,558	29	8,004
Allowances ,, ..		17,520		12,432		21,912
	320	184,632	154	110,919	173	229,112

* Includes Establishment for Roads and Lighting.

From these figures it will be seen that, as compared with 1920-21, the number of employees has increased by 19, and the cost by Rs. 1,18,183, the percentage increase being 12 per cent and 106 per cent respectively. No comparison with 1913-14 is possible, as the Roads Branch was then combined with the Buildings Inspection Branch.

2. The main work of this Branch is the carrying out and enforcing of the provisions of the Municipal Act and the Building Regulations in respect of the construction of new buildings and the alteration of existing buildings. Statistics showing the number of plans examined, buildings inspected, and prosecutions undertaken during the past 15 years are given in Statement "A" attached. These statistics show clearly that the work of building inspection is, at the present time, not any heavier than it was 10 to 15 years ago; in fact, the number of buildings dealt with in 1923-24 was the lowest in the past 15 years, 1918-19 excepted.

3. As against this, the Executive Engineer points out that the Building Branch has now, by orders of the Corporation, to

enforce the provision of fire-proof staircases, and to assist the Health Department in connection with houses unfit for human habitation.

4. Reference to the Table in para. 1 above will show that the main cause of the large increase of cost since 1921 is the increase in the number and the emoluments of the supervising staff. When the engineering staff was regraded and the scales of pay revised in 1921, the 5 Building Superintendents were re-named "Senior Assistant Engineers" and the scale of pay altered from Rs. 250-10-300 (one was on Rs. 350-10-400) to Rs. 650-50-1200. From 1st April, 1925, four of these engineers will be drawing Rs. 850 per month, and the remaining one would normally rise to that pay on the 1st September, 1925. In 1921, before the revision, the average rate of pay per month was Rs. 296, so that in four years they have had an increase of 185 per cent.

5. In addition to the above, a new grade of sub-engineer was created, there now being 9 of these employees where in 1921 there were none. The number of Inspectors has been decreased by four, but this has been counteracted by the increases in the Surveying and Menial staffs.

6. The Executive Engineer has agreed to reduce the number of employees in all the grades as shewn below, though he desires to emphasise the point that he will not be able to proceed with the work of inspection in connection with staircases and unfit houses as rapidly as the Corporation desire :—

1 Senior Assistant Engineer
3 Sub-Engineers
1 Inspector
1 Draftsman
3 Tracers
4 Clerks
5 Mukadams
14 Lascars
7 Boys.

The Sub-Overseers have been increased by one, from 11 to 12.

7. The question of the revision of the grades and pay of the staff will be dealt with, later, when this question, as affecting the

entire engineering staff of the Corporation, has been thoroughly explored.

8. The retrenchments agreed to give savings as follows :—

On the 1924-25 Budget .. 45,032
On the tentative 1925-26 Budget .. 54,146

T. H. BIRD
Secretary,
Retrenchment Enquiry.

24th November 1924.

STATEMENT "A" REFERRED TO ABOVE.

Statistics relating to Buildings Inspection Work.

Year.	No. of Buildings. Plans received.	No. of Buildings dealt with.	Prosecutions.	Remarks.
1	2	3	4	5
1909–10	3,198	Not available.	1,360	The difference between the figures in Cols. 2 & 3 arises because revised plans have to be submitted for most buildings. Plans are also submitted for buildings not proceeded with.
1910–11	3,237	,,	1,664	
1911–12	3,404	,,	1,608	
1912–13	3,618	2,211	1,314	
1913–14	3,528	2,122	944	
1914–15	3,558	1,948	711	
1915–16	3,461	2,054	674	
1916–17	3,286	2,129	602	
1917-18	3,105	2,037	832	
1918–19	2,668	1,289	1,019	
1919–20	3,556	1,747	1,098	
1920–21	3,287	1,622	1,283	
1921–22	3,211	1,527	1,110	
1922–23	3,294	1,488	1,516	
1923–24	3,184	1,393	1,306	

APPENDIX IV.

Subject :—**Retrenchments in the Executive Engineer's Department (Kurla-Deonar Railway Section).**

1. The figures relating to this Section are as under :—

	Total Cost. Rs.	Establishment. No. of Employees	Cost. Rs.
1913-14	86,398	281	42,678
1920-21	1,69,707	278	46,212
1924-25	1,89,401	279	85,296

The increased cost under the head of "Establishment" is, it will be seen, wholly due to the increase in the pay of the labour and other staff.

2. The only other big item of expense is the Transport Charges which in the 1924-25 Budget are shewn as Rs. 81,300, as compared with Rs. 71,307 in 1920-21, and Rs. 33,853 in 1913-14. These charges being based upon contracts, no saving appears possible.

3. Though there does not appear to be a case for retrenchment on general grounds, the Executive Engineer has agreed to abolish the post of 1 Sub-Overseer and to reduce the number of women and boys, which reductions give a saving of Rs. 5,864 on the 1924-25 Budget, and of Rs. 7,200 on the tentative Budget for 1925-26.

T. H. BIRD
Secretary,
Retrenchment Enquiry.

24-11-24.

APPENDIX V.

Subject: **Retrenchments in the Executive Engineer's Department (Repairs Section).**

1. Prior to 1921, the work of supervising the repairs to Municipal buildings was carried out by the Architectural Section of the Executive Engineer's Department. In 1921, that Section was transferred to the Special Engineer's Department, and the Repairs Section was then formed.

2. The comparative figures available are :—

1921-22	.. ..	Rs. 27,801
1922-23	.. .. ..	,, 35,058
1923-24	.. .. ..	,, 34,174
1924-25	.. .. ..	,, 36,213

The increase of 1924-25 over 1921-22 is almost wholly due to the annual increases of pay.

3. The present staff comprises :

1 Senior Assistant Engineer
1 Sub-Engineer
16 Subordinates.

4. The works executed under the supervision of this Section amount, approximately, to Rs. 2 lakhs per annum, practically the whole being carried out by the Petty Works Contractors.

5. As the present holder of the post of Senior Assistant Engineer is due for retirement next year, the Executive Engineer is of opinion that a lower grade Engineer on, say, a salary of Rs.500-50-1000 would be capable of exercising efficient supervision over the repair works.

6. The inspecting and measuring up of the numerous works entails a large amount of detailed checking and calculations, and the Executive Engineer suggests that this work could be better executed by abolishing the post of Sub-Engineer, and increasing the Overseers, Mukadams, and Mistries from 3 each to 4 each.

7. This suggested reorganization will result in a saving of Rs. 4,331 over the 1924-25 Budget and Rs. 5,442 over the 1925-26 tentative Budget.

T. H. BIRD
Secretary,
Retrenchment Enquiry.

25-11-25.

APPENDIX VI.

Subject :—**Retrenchment in the Executive Engineer's Department (Upkeep of Municipal Head Office).**

1. For the size of the Municipal Head Offices, the expenditure on upkeep does not appear to be excessive and in fact is lower than the similar expenditure of the Calcutta Corporation.

2. The tentative Budget for 1925-26 shows a proposed expenditure of Rs. 48,108, of which Rs. 18,100 is for electric supply. It may be possible to effect a saving on this item if stricter supervision is exercised over the use of the electric lights and fans, and it is suggested that fresh orders should be issued to Departments to this effect.

25-11-24

T. H. BIRD
Secretary,
Retrenchment Enquiry.

APPENDIX VII.

Subject :—**Retrenchments in the Roads Department.**

1. This service cost in 1913-14 (exclusive of supervision, establishment and office charges) Rs. 10,28,291. In 1920-21 it was (inclusive of all charges) Rs. 22,48,676 and in 1924-25 Rs. 23,91,456.

2. The increase over 1920-21 appears to be only Rs. 1,50,000, but the true increase is considerably greater, for the Corporation have in the past two years embarked on a programme of road reconstruction financed out of loan moneys, which should mean a corresponding reduction in the ordinary maintenance charges. This is an important fact which must be borne in mind when considering the present cost of this Department.

3. The chief items of expenditure are compared below :—

	1920-21 Rs.	1924-25. Rs.
Establishment	1,52,182	2,87,812
Oiling and tarring	3,75,824	4,90,000
Repairs and Maintenance ..	12,10,330	10,50,000
Depreciation	32,272	1,45,000
Port Trust Roads	87,019	1,29,919

4. In 1920-21, the Supervisory staff consisted of 1 Assistant Engineer and 1 Superintendent, at a total yearly cost of Rs. 10,270.

Now there are three Senior Assistant Engineers at a total yearly cost of Rs. 34,800.

5. In the same period of 4 years the clerical staff has increased by .. .. Rs. 13,286
the menial staff by 100
and the allowances have increased by 4,072

A total increase of Rs. 17,458

6. In 1920-21 the out-door inspection work was carried out by

8 Inspectors.
6 Overseers.
39 Sub-Overseers.

at a total cost of Rs. 50,286. This year the same work requires

7 Sub-Engineers,
7 Overseers,
27 Sub-Overseers,
1 Checker, and
1 Inspector for trees,

whose total salaries amount to Rs. 82,620.

7. The remaining out-door staff compares as follows :—

	1920-21		1924-25	
	No.	Cost.	No.	Cost.
Ward Clerks	21	13,382	21	23,220
Mistries	7	2,520	5	3,900
Veterinary Inspector	1	900	1	1,420
Chowkidars	7	1,176	7	1,428
Mukadams	28	6,108	28	7,788
Lascars	9	1,884	10	2,004
Steam roller staff	71	24,900	103	53,160
*Stone breaker	3	1,260		
*Motor wagon	24	9,432		
*Stone crusher	2	690		
*Tar mixer	2	690		
Allowances		12,552		25,260
		75,494		1,18,180

8. The Retrenchment Adviser has given this Department his personal attention, and after considerable discussion with the Executive Engineer, and the Senior Assistant Engineer, Roads, retrenchments have been agreed upon which show a saving of Rs. 4,59,894 on the 1924-25 Budget, and Rs. 3,58,324 on the 1925-26 tentative Budget.

9. To these retrenchments I agree but suggest that, in addition, the Ward Clerks should be reduced to 14 in all. The work done in the Ward Offices has recently been thoroughly test audited, and I am convinced that there is a duplication of work in the Ward and Head Offices which can be obviated by a reorganization of

* These plants are now charged through Advance Accounts and the cost of the staff is hidden in the inclusive charge for the materials supplied.

duties. I must, however, state that the maximum of the salary now paid to the Ward Clerks, (Rs. 60-10-100) is insufficient to attract a good class of men and I would suggest that this point should be taken into consideration when the re-grading of the staff is undertaken.

26-11-24

T. H. BIRD
Secretary,
Retrenchment Enquiry.

APPENDIX VIII

Subject :—**Retrenchments in the Drainage Department.**

1. The comparative cost figures of this department are :—

1913-14	.. ..	Rs. 3,40,653
1920-21	.. ..	,, 5,49,348
1924-25	.. ..	,, 7,66,026

The main items are :—

Particulars.	1913–14	1920–21	1924–25
General Supervision	42,460	62,436	1,07,208
Out-door Establishment	20,190	52,387	95,004
Labour	96,726	1,44,284	1,80,000
Hire of carts	26,900	48,457	45,000
Repairs	46,203	59,122	83,980
Cleaning Drains	5,107	17,745	24,500
Open main drain and low level channel	2,981	5,939	8,000
Depreciation	..	..	4,513
New Works	75,555	1,22,000	1,65,898
Sluices	2,434	4,149	7,380

2. The numbers of the general supervisory staff were :—

1913-14	.. ..	49
1920-21	.. ..	50
1924-25	.. ..	54

The increased cost of this item is almost solely due to the increased rates of pay of the staff.

3. The out-door establishment has increased in number as follows :—

1913-14	.. ..	57
1920-21	.. ..	67
1924-25	.. ..	67

In this case also, the increased cost is due to the increase of pay.

4. Labour has increased as under :—

1913-14	.. ..	370
1920-21	.. ..	593
1924-25	.. ..	642

The increasing cost of this item is due both to increase in number and the rates of pay.

5. Statistics showing the main works done by the Department are given in the statement attached.

6. The increased staff and labour since 1914 is not out of proportion to the increased length of sewers and drains which have to be cleaned and maintained, but after consideration of the detailed duties of the staff, the Drainage Engineer has consented to the reduction of the following :—

2 Sub-Overseers ..	..(Office Surveying staff)
1 Lascar	.. do.
1 Inspector	..(Ward Inspection staff).
1 Assistant Inspector	.. do.
1 House Drain Inspector	.. (New Works Staff).
1 Plumber	.. do.

7. In view of the fact that an additional silt motor wagon will be operating next year, the hire of bullock carts is being reduced by Rs. 5,000. In addition to this the Drainage Engineer has consented to reduce the provisions for cleaning and maintaining the open main drain and low level channel by a total of Rs. 9,000.

8. The Head Office Clerical Staff consists of two Head Clerks and 20 Clerks, the largest of any of the Engineering Departments. A few months ago the posts of two clerks were abolished, and a new post of an additional Head Clerk created. I am not convinced that such a large staff is actually required, and suggest that the Drainage Engineer be requested to re-organise the work so as to reduce the staff to one Chief or Head Clerk and 19 Clerks, a total of 20 altogether, as against the present 22.

9. The reductions agreed upon, exclusive of any reduction in the clerical staff, give a saving of Rs. 18,528 over the 1924-25 Budget and Rs. 25,220 over the tentative 1925-26 Budget.

T. H. BIRD
Secretary,
Retrenchment Enquiry.

27-11-24

STATISTICS OF WORK CARRIED OUT BY THE DRAINAGE DEPARTMENT

Year.	Pipe Sewers.			Ovoid Sewers.		
	Length Miles.	Cleaned Miles.	Silt removed. Tons.	Length Miles.	Cleaned Miles.	Silt removed Tons.
1913-14		Figures	not	available		
1915-16	115.70	38.24	1,762	10.57	15.86	328
1920-21	120.00	32.53	1,771	14.07	17.03	247
1922-23	122.35	44.94	2,189	14.70	13.36	457
1923-24	124.90	47.61	2,126	14.25	14.08	571

Year.	S. W. Drains.			Catchpits.		
	Length Miles.	Cleaned Miles.	Silt removed. Tons.	No.	Silt removed. Tons.	Total silt removed.
1915-16	148.62	33.69	11,465	39	4,112	17,667
1920-21	155.00	31.29	8,989	41	1,775	12,782
1922-23	160.32	21.73	7,508	41	1,607	11,761
1923-24	163.18	27.47	9,259	41	1,835	13,791

Year.	Sullage Connections.			S. W. Connections.		
	No.	Total cost. Rs.	Unit. cost. Rs.	No.	Total cost. Rs.	Unit cost. Rs.
1915-16	340	16,215	47.69	133	4,569	34.35
1920-21	309	19,839	64.20	129	6,234	48.32
1922-23	285	22,247	78.06	115	6,999	60.86
1923-24	404	23,232	57.50	105	6,919	65.89

APPENDIX IX

Subject :—**Retrenchments in the Water Works Department.**

1. The operating and maintenance costs compare as under :—

1913-14	.. .. ..	Rs. 3,56,901
1920-21	.. .. ..	,, 8,11,645
1924-25	.. .. ..	,, 8,54,222

Over 1913-14 expenditure, 1920-21 shows an increase of 127 per cent, and 1924-25 an increase of 139 per cent.

2. The average daily quantity of water delivered into the City and suburbs was :

1913-14	.. .. 32.15	Million Gallons.
1920-21	.. .. 44.32	,, ,,
1923-24	.. .. 49.00	,, ,,

3. The mileage of supply and distributing mains was :

1913-14	.. .. ..	263 Miles.
1920-21	.. .. ..	319¾ ,,
1923-24	.. .. ..	342½ ,,

4. Allowing for the depreciation of money since 1914, the present expenditure does not seem out of proportion to the increased quantity of water brought into the City and the increase in the number of connections.

5. All the items of expenditure have been thoroughly discussed with the Hydraulic Engineer, and it is really difficult substantially to reduce the expenditure without seriously affecting efficiency. However, after prolonged consideration, the Hydraulic Engineer has now agreed to abolish the posts of two Inspectors, two Ramoshies and to reduce considerably the temporary labour.

6. Further, the Hydraulic Engineer has agreed to endeavour to keep down the expenditure on meters, the filter plants and certain other items.

7. The attention of the Corporation must, however, be drawn to the fact that the reductions in the establishment and temporary labour are wholly dependent upon the Department being relieved of the responsibility for defects in the internal fittings of private houses, a liability which is not borne by any other water undertaking.

8. The reductions suggested amount to Rs. 14,610 on 1924-25 Budget, and Rs. 53,464 on the tentative 1925-26 Budget, excluding the new provision for chlorinating the water supply.

28—11—24.

T. H. BIRD
Secretary,
Retrenchment Enquiry.

APPENDIX X

Subject :—**Retrenchments in the Mechanical Engineer's Branch (Pumping and Compressor Stations).**

1. The comparison of expenditure is as follows :—

	Rs.
1913-14	.. 3,02,386
1920-21	.. 4,76,640
1924-25	.. 7,61,871

2. Prior to 1922 the salary of the Mechanical Engineer was charged to the establishment of the Executive Engineer. Now his salary, Rs. 16,200, and upkeep of motor car, Rs. 2,630, total Rs. 18,830, is wholly charged to this service. This is hardly correct, for the Mechanical Engineer does not give his whole time to this service ; the greater portion of his time is taken up by the Workshops and miscellaneous work, and I therefore suggest that only one-half of his salary and motor car upkeep be charged to this service in future, the other half being charged to Workshops. This suggestion cannot be given effect to until sanctioned by the Standing Committee.

Colaba Compressor Station.

3. The cost of running this station has increased from

Rs. 34,360 in 1913-14 to
,, 37,565 ,, 1920-21 and to
,, 57,657 ,, 1924-25

This increase is mainly due to the repairs and maintenance, which now costs Rs. 17,000 as against Rs. 5,492 in 1920-21.

Stores have increased from Rs. 1,714 in 1920-21 to Rs. 3,000, this year.

Pumping Station Love Grove.

4. The expenditure at this station has increased as follows :—

1913-14	Rs. 1,76,564
1920-21	,, 2,76,988
1924-25	,, 4,18,294

The main causes of the increase are :—

	1920-21	1924-25
	Rs.	Rs.
Establishment and Labour	50,000	74,000
Fuel	1,36,000	2,00,000
Repairs	62,000	86,000
Stores	26,000	45,000
Tools and Plant		9,500

As this station is being converted from steam power to electric power, savings will automatically be effected.

Compressor Station Love Grove.

5. The expenditure on this station was

in	1913–14	Rs.	89,296
,,	1920–21	,,	1,56,172
,,	1924-25	,,	2,03,299

Labour now costs Rs. 6,000 more than four years ago, and fuel Rs. 58,000. The other expense items either show a decrease, or only a very slight increase, but I am inclined to the belief that some proportion of the increased charges debited to the pumping station should really be charged to this station.

6. The Mechanical Engineer, after consultation with the Retrenchment Adviser, agreed to submit proposals for retrenchment. These proposals have been accepted, and show a saving of Rs. 1,00,000 on the 1924-25 Budget, and Rs. 83,194 on the 1925-26 tentative Budget.

T. H. BIRD
Secretary,
Retrenchment Enquiry.

29—11—24.

APPENDIX XI.

Subject:—**Retrenchments in the Public Health Department.**

The expenditure under the administrative control of the Executive Health Officer falls under two Budget Heads and is as under :—

		Budget 1924–25 Rs.
V.	Public Health Department	9,18,259
VI.	Hospitals & Medical Relief :—	
A	Hospitals & Dispensaries :—	
(*b*)	Maternity Homes..	94,112
(*c*)	Dispensaries for out-patients ..	58,558
B	Medical and Nursing assistance to poor people in their houses	41,220
E	Anti-Tuberculosis League ..	68,218
		11,80,367

The corresponding figures for 1913-14 and 1920-21 are as follows :—

Year.	Gross amount. Rs.
1913–14 ..	.. 5,29,728
1920–21 ..	.. 6,95,841

The current year's budget figures show an excess of Rs. 6,50,639 over that for 1913-14, and of Rs. 4,84,526 over that for 1920-21. A careful examination of the figures shows that the following heads of expenditure did not exist in 1913-14 :—

(*a*)	Epidemic Charges	Rs. 38,746
(*b*)	Malaria Charges (connected with rent, tools, medicines, plant and contingencies)	6,700
(*c*)	Maternity Homes	94,112
(*d*)	Anti-Tuberculosis League	68,218
		Rs. 2,07,776

If we eliminate these new items of expenditure, the excess over the figures for 1913-14 comes down to Rs. 4,42,863, nearly to the same level as the excess over the figures for 1920-21, Rs. 4,84,526.

2. The Executive Health Officer has gone into the question of retrenchment very carefully and has met the general wishes of the Corporation for economy. His proposals, summarised in his report dated 25th September 1924, result in an aggregate saving of Rs. 1,26,968 under the following budget heads :—

		Rs.
V.	Public Health Department	.. 1,08,506
VI.	Hospitals and Medical Relief	.. 18,462
		1,26,968

But some of the reductions proposed were given effect to when passing the current year's budget and consequently they cannot be taken into consideration when submitting proposals which are meant for further reductions from the allotments made for 1924-25. Besides, the retrenchments were calculated by the Health Officer on the current salary of the present incumbents, whereas we should base our proposals on maxima standards when a general policy of retrenchment is adopted. With these two modifications, I have worked out the retrenchment proposals in detail in the succeeding paragraphs.

3. The first kind of expenditure to be investigated is " Fixed Recurring Charges " and the following table classifies the same under Major and Minor Heads :—

Statement showing growth of expenditure in the fixed recurring items of expenditure of the Public Health Department

Major Head.	Minor Head.	Sub-Head.	1913–14	1920–21	1924–25	Excess over 1913–14	Excess over 1920–21
V. Public Health	A. General Supervision... ..	Establishment	1,93,676	3,09,224	5,07,948	3,10,272	2,01,314
	B. Supervision of City Milk Supply	Establishment	1,642	4,407	17,988	16,346	13,581
	C. Epidemics	Temporary Staff	..	4,587	5,000	5,000	413
		,, Labour	..	4,231	10,000	10,000	5,769
	D. Vaccination	Establishment	18,318	26,352	40,452	22,134	14,100
	E. Malaria	Establishment	45,426	18,737	73,220	27,794	54,483
	F. Miscellaneous	(a) Cemeteries Estbt.	4,722	5,753	11,484	6,762	5,731
		(b) Laboratory Estbt.	10,145	10,172	18,600	8,455	8,428
		(c) Mahaluxmi Dhobiwada Estbt,..	970	1,191	2,028	1,058	837
		(d) Dharamshala Estbt.	165	172	300	135	128
		(e) Destruction of Dogs Establishment	..	1,273	4,644	4,644	3,371
VI. Hospitals & Medical Relief.	A. Hospitals and Dispensaries. ..	(a) Maternity Homes Establishment	..	18,180	28,752	28,752	10,572
		(b) New Maternity Home at Mahim.	..	..	25,000	25,000	25,000
		(c) Dispensaries for out-patients Estbt.	5,533	9,854	38,988	33,455	29,134
	B. Medical and Nursing Assistance to poor people ..	Establishment	..	..	24,720	24,720	24,720
	E. Anti-Tuberculosis League ..	Establishment	..	..	40,308	40,308	40,308
		Total ..	2,84,597	4,14,133	8,49,432	5,64,835	4,35,299

4. It will be seen that the Fixed Recurring Charges, *i.e.*, Establishment Charges, of 1924-25, exceed those for 1913-14 by Rs. 5,64,835 and those for 1920-21 by Rs. 4,35,299. The Corporation have sanctioned new services of the following nature subsequent to 1920-21 :—

		New Establishment Charges.
		Rs.
(*a*)	New Maternity Home at Mahim ..	25,000
(*b*)	Medical and Nursing assistance to the poor	24,720
(*c*)	Anti- Tuberculosis League.. ..	40,308
		90,028

The elimination of these new charges from the excess over 1920-21 reduces the growth of expenditure to Rs. 3,45,271, *i.e.*, the expenditure for 1924-25, even under the same recurring heads, exceeds by 84 per cent the expenditure for 1920-21. There may be normal increments in time scale of pay to the permanent incumbents which may be taken at about 10 per cent per annum. Still there will remain 44 per cent increase after completion of four years from 1920-21, which requires to be pruned off by careful scrutiny.

5. Included in the head " General Supervision, Establishment" are the two Senior Assistants to the Health Officer. The Health Officer proposes to abolish one post, and to entrust the Malaria supervision work to the remaining Assistant Health Officer. It is also proposed that this Assistant shall supervise the work of the King George V Anti-Tuberculosis League, and the League for combating Venereal Diseases, recently transferred to the Municipality. The Health Officer proposes a pay of Rs. 1000-100-1200 with the allowances hitherto paid to the First Senior Assistant. The effect of this arrangement will bring a net saving of Rs. 16,800 on the maximum basis.

6. The Assistant and Deputy Health Officers next come under review. The Executive Health Officer proposes the reduction of the two posts of Deputy Health Officers (Rs. 350-15-500), and the distribution of their work among the five Assistant Health Officers. The proposal is a sound one and may be accepted. It gives a reduction of Rs. 14,040 per annum on the maximum basis.

7. While considering this proposal, I have two suggestions to make. Firstly, the present holders of the two posts of Senior Assistants to the Health Officer are already due for superannuation, and are under extension. One of these posts is proposed to be abolished; the other, which will carry the pay of Rs. 1000-100-1200 (revised), will possibly be secured by one of the present three Assistant Health Officers (Rs. 600-30-750) first grade. The vacancy in the first grade of Assistant Health Officers need not be filled up and the strength of this grade should be reduced to two, while that of the second grade should be raised from two to three. As a rule, all graded services show very few posts in the highest grade, while the lower grades comprise a larger number of posts. In the sanitary service of this Corporation this distinction is not observed, for the posts are now as under :—

Designation.	Strength.
Senior Assistants to the Health Officer ..	2
Assistant Health Officers :—	
First Grade	3
Second ,, ...	2
Total	7

My proposal is that the cadre should be arranged as under

Senior Assistant to the Health Officer ..	1
Assistant Health Officers :—	
First Grade	2
Second ,, ...	3
Total ..	6

8. Secondly, the minimum pay of the posts of the second grade of Assistant Health Officers should be reduced from Rs. 500 to Rs. 400. This will affect new recruits only, and will not adversely affect the vested rights of the present incumbents. My reasons for this alteration are briefly as follows :—

The Sanitary Service of Municipal towns (except the Presidency town) has been determined by Government under Resolution No. 2815 dated 14th February 1923. The scale of pay of First Class Health Officers, possessing British qualifications is fixed at

Rs. 400-25-750 ; while that of First Class Health Officers, possessing Indian qualifications, is fixed at Rs. 300-20-600. The Corporation have dispensed with the difference in the two kinds of qualifications in the municipal service and have fixed the scale of pay for the first and second grades at Rs. 600-30-750 and Rs. 500-20-600 respectively. It appears that possessors of British Diplomas of Health are available even for the posts of Deputy Health Officers carrying pay of Rs. 350-15-500. There is, therefore, no reason why the Corporation should not revise the scale of pay of the Assistant Health Officers with due regard to efficiency. A medical graduate with a British Diploma of Health can fairly start in the Municipal Service with Rs. 400 as against Rs. 300 in a mofussil first class town, and expect to rise normally to Rs. 600 in ten years and Rs. 750 in a further period of five years. When we compare the prospect of the Provincial services, either in the Executive or in the Judicial line, with those of Assistant Health Officers, we find that the latter officers, commencing with Rs. 400 and rising to Rs. 750 within 15 years, cannot be considered to be unhappy in the selection of their career. Again, just as Provincial Service men have a chance of rising to the select grade of Rs. 1000-100-1200, these Assistant Health Officers have a goal of one select grade of Rs. 1000-100-1200.

9. The reduction of one post of Assistant Health Officer in the first grade and the addition of one post to the second grade, coupled with the abolition of two posts of Deputy Health Officers, will effect a recurring saving of Rs. 16,440, as against Rs. 14,040, which is the saving shown by the Health Officer's proposal for the abolition of the posts of two Deputy Health Officers only.

10. The reduction of the Deputy Health Officers' posts will lead to a reduction of 9 persons in the strength of the clerical and menial staff. This is agreed to by the Health Officer, and will result in a net recurring saving of Rs. 11,776.

11. The Health Officer and the Municipal Commissioner have agreed to reduce the strength of Medical Assistants in charge of sections from 50 (exclusive of leave reserve of 11) to 40. The present leave reserve is 11. It should proportionately be reduced to 9. There will thus be a reduction of 12 posts with a recurring

saving of Rs. 39,720 on the maximum scale, in-as-much as the present extra allowance of Rs. 10 to each of 61 Medical Assistants will merge in the maximum scale of pay of Rs. 225.

12. There is no possibility of Retrenchment under minor heads.

B. Supervision of City Milk Supply.

C. Epidemics and

D. Vaccination.

Under " Vaccination " a reduction of Rs. 13,200 has already been effected in 1923-24 by discontinuing the manufacture of lymph by departmental arrangement, and the substituting therefor of the system of purchase of lymph from the Bombay Government. Under " E. Malaria," however, there is scope for the reduction of the Junior Overseers from 38 to 15 and the coolies from 76 to 30. The Health Officer proposes this reduction, and consequently, the wisdom of retrenchment is administratively certified. The Health Officer adds one mukadam. It is a minor change. The financial effect of these changes will be a net saving of Rs. 27,564.

13. The Health Officer's last proposal is a reduction of ten nurses in the service of " Medical & Nursing Assistance to Poor People in their homes." It is stated " that the staff of Municipal nurses (qualified midwives) has been recently increased from ten to twenty. The numbers of cases of confinement attended by the ten nurses newly appointed continues to be small and disappointing. This work overlaps with that of the Infant Welfare Society, to which the Municipality contributes Rs. 15,000 annually, or the equivalent of the salaries of fifteen nurses at Rs. 80 per mensem. In 1923 the nurses of the Society conducted 328 cases of confinement and this probably accounts for the difficulty which the Municipal nurses experience in finding cases." The reduction proposed is, therefore, sound both from the administrative and economic points of view. The financial effect of the proposal will be a net recurring saving of Rs. 16,800.

14. The results of the investigation are briefly as under :—

Head.	Budget figures for 1924–25	Retrenchment.
V. Public Health :—		
(*A*) General Supervision :—	Rs.	Rs.
(*b*) Central Office	57,216	16,800
(*c*) Assistant and Deputy Health Officer	1,32,594	16,440 11,776
(*d*) Medical and Sanitary staff including registration of births and deaths	2,94,138	39,720
(*e*) Malaria	73,220	27,564
	5,57,168	1,12,300
VI. Hospitals & Medical Relief:—		
(*B*) Medical & Nursing assistance to the poor	24,720	15,480
Grand Total ...	5,81,888	1,27,780

N. D. MEHTA,
Retrenchment Officer.

4—11—24.

PUBLIC HEALTH.

Reconciliation of Mr. Mehta's proposals with actual savings on the tentative Budget for 1925-26.

	Rs.	Rs.
Total of Mr. Mehta's proposals for Public Health purposes as given above		1,12,300
Less		
Difference between maxima and actual rates of pay ..		36,676
		75,624
Add		
Error in calculation	2,160	
Retrenchments in fluctuating but recurring charges not allowed for by Mr. Mehta	12,550	14,710
		90,334

APPENDIX XII

Subject :—**Retrenchments in the Hospitals and Medical Relief Services.**

Medical Relief within the Municipal Area falls under the following heads :—

		Rs.
A.	(*a*)Hospitals of Infectious Diseases	2,12,295
	(*b*) Maternity Homes	94,112
	(*c*) Dispensaries to outdoor patients	58,558
B.	Medical and Nursing Assistance to the poor people in their houses	41,220
C.	Statutory Contribution	4,14,500
D.	Grants in aid to public medical institutions	88,700
E.	Anti-Tuberculosis League	68,218
	Total ..	9,77,603

Out of these A (*a*) (Rs. 2,12,295) head falls under the direct control of the Medical Superintendent ; while the subsequent heads Rs. 7,65,308) are directly controlled by the Executive Health Officer. Items A.(*b*) and A. (*c*), B and E have been included in the gross item of Rs. 11,80,367 investigated in Appendix XI. Items C and D are fixed statutory and contractual obligations and cannot be curtailed. The only items which require investigation in this note, therefore, fall under the budget head A (*a*) and the general medical and disinfectant charges falling under the remaining heads.

2. There are at present two Hospitals—Arthur Road Hospital for infectious diseases, and the Maratha Hospital for plague. These Hospitals are fully staffed, with a resident Medical Officer in charge and the necessary Medical Assistants, and in addition there is a Medical Superintendent in executive charge. This latter appointment was originally intended to be one in the cadre of Assistant Health Officers as the following extracts will show. In the Note of the Municipal Commissioner, dated 29th October 1919, Mr. Monie observed as under :—

"The appointment of the Assistant Health Officer at the Head Office, which I proposed to abolish, should be continued. The maximum

pay of this Assistant should, like that of the Senior Assistant at present, be fixed at Rs. 1,200 and of the two Senior Assistants, one should be employed on general administrative duties, and the other on Special Enquiries and Research....."

The Medical Relief Committee, in para. 9 of their Report, dated 17th December 1919, also summarized the results of the proposals as under :—

" There will be two Senior Assistant Health Officers. One will assist the Executive Health Officer in the General administration of the Health Department, and in supervising the work of the five Assistant Health Officers in charge or the five divisions of the City, and the work of the Conservancy Assistant. The other Senior Assistant Health Officer will be employed as specified above on Special Enquiries and Research."

The Corporation, in para 2 of their Resolution No. 13364 dated 1st March 1920, modified the proposal and decided as under:—

" That there should be only one Senior Assistant Health Officer to assist the Health Officers in supervising the work of the Assistant Health Officers. The other proposed Senior Health Officer should be replaced by (a) a Medical Superintendent, Municipal Hospitals, on Rs. 1,000 per month at the maximum, who should be a trained Bacteriologist and a Medical Officer of first rate knowledge and experience in infectious diseases, and who should be responsible to the Health Officer, and (b) a Bacteriologist on Rs. 600 per month at the maximum, who should work under the direction of the Medical Superintendent."

3. In pursuance of this resolution creating the new post, applications were invited by the Municipal Commissioner. The notice inviting applications, dated 30th September 1920, states inter alia "that the appointment will be for five years and renewable at the end of that time."

The present incumbent, Dr. P. T. Patel, was recommended by the Medical Relief Committee; and the Corporation, in their resolution No. 1425, dated 12th May 1921, approved and adopted the proposal. Again under C. R. No. 796, dated 27th April 1922, an allowance of Rs. 200 per mensem was attached to the post with effect from 1st August 1921, for the services to be rendered by him as Surgeon of the Fire Brigade. His duty as the Surgeon of the Fire Brigade, is " to attend all sick or injured members of the Fire Brigade at their residence and to furnish the Commissioner with such certificates and reports as may be called for."

4. This is the genesis of this appointment of Rs. 1,000 +200 per mensem. Let us now see the work of supervision and research which he has to do.

The sub-joined table shows the average number of patients treated daily at both the Hospitals :—

Name of the Hospital	Average daily number of patients.		Average weekly cost per patient.		Average number of post mortem cases per year.	Average number of Bacteriological Examinations
	1922–23	1923–24	1922–23 R. a. p.	1923–24 R. a. p.		
Arthur Road Hospital	11.6	41.1	25—5—3	16—7—8	6	253 (760 in 3 years).
Maratha Plague Hospital ..	17.65	16.75	14–10–10	19—3—3	6	603 (1811 in 3 years.)

5. The maximum number of patients from 1904 to 1923 in both the Hospitals was 4631 in 1918, while the minimum number of patients in both the Hospitals was 964 in 1922. The average number of patients per year suffering from infectious diseases based on the actuals of 10 years (1914-23) comes to 2142. The number of visits paid to the Fire Brigade men at their own places was only 24 in one year.

6. There is a proposal to increase the accommodation for in-door patients' beds from 322 to 412, i.e. by 90 beds (*Vide* item No. 192 of October 1924 Agenda of the Corporation). But there is no reason why the retrenchment axe should not be applied to existing conditions where there are definite proofs of extravagance.

7. As these Hospitals are for infectious diseases only, and as the normal number of patients cannot be determined as in the ordinary hospitals, it is desirable that the permanent staff should be restricted to the minimum number of patients admitted—(964 in 1922) and the rest should be relegated to the temporary schedule. The requisite provision should be for the average number of beds occupied during the last ten years. This arrangement will reduce the Provident Fund and Pension Charges on the present surplus permanent staff.

8. At the Arthur Road Hospital there are one Resident Medical Officer, two Medical Assistants, and one Matron ; while at the Maratha Hospital there are two Medical Assistants, and one Sister-in-Charge. As the Medical Superintendent is not fully occupied with the work of supervising, for he is at present doing the

duty of the Resident Medical Officer at the Arthur Road Hospital, (Dr. Chokshi having resigned the post), this latter post of Rs. 300-25-500 per mensem may safely be abolished and one of the Medical Assistants may be promoted as Senior Assistant on Rs. 225-25-300. Similarly, there is a vacancy of one nurse out of seven. That post, too, need not be filled up, and may be abolished.

9. The result of these changes will be a net saving of Rs.7,380 on the maximum rates of pay.

Motor Ambulances for Infectious Diseases Removal.

10. Seven ambulances are maintained for the removal to the Hospitals for treatment of persons suffering from infectious diseases. I append a statement showing particulars of the working of these ambulances :—

Serial No.	Particulars.	1921–22 full year.	1922–23 full year.	1923–24 full year.	1924–25 8 months
1	Number of Motor Ambulances	5	6	7	7
2	Total cases removed ..	976	774	1,160	1,011
3	Establishment Charges ..	10,951	12,163	13,059	10,183
4	Maintenance Charges ..	9,421	9,883	16,670	8,969
5	Other Stores (Petrol excluded)	1,122	869	1,358	1,138
6	Cost of Petrol	4,341	2,954	3,698	2,760
	Total of item Nos. 3—6..	25,835	25,869	34,785	23,050
7	**Add** Depreciation	4,431	4,431	4,431	4,431
	Rs.	30,266	30,300	39,216	27,481
8	Total Petrol consumed (gls.)	2,097	1,417	2,042½	1,687
9	Total mileage run	12,583	8,584	11,470	9,241
10	Average mileage run per gallon of petrol	6.1	6	5.1	5.4
11	Maximum number of cases removed in one day ..	..	..	17 29–3–23	16 25–3–24
12	Average number of cases removed per day	2.6	2.1	3.1	4.1
13	Cost per mile run	2–2–9	3–3–9	3–3–9	2–11–0
14	„ „ case removed „	28–0–11	35–11–9	31–14–9	24–6–6

11. In 1923 seven ambulances were maintained throughout the year at an aggregate cost of Rs. 34,785. The average mileage run per gallon was 5.1 as against the normal standard run of 15 miles per gallon for a Ford ton van. These ambulances are not heavy motor conveyances. If a comparison is made with the running costs of the infectious disease ambulances maintained by the Spenborough Urban District Council, England, determined by test over a period of 43 weeks, the position will be made lucid :—

Particulars	Spenborough.	Bombay.
Average mileage run per gallon of petrol	9.06	5.1
Cost per case removed	Rs. 19–5–6	Rs. 31–14–3
Cost per mile	1–0–6	,, 3–3–9

12. It is thus evident that the Bombay Corporation Hospital Ambulances are extravagant in cost. Again, the maximum number of cases removed in any one day is 17, *i. e.*, 2.42 per ambulance. On no day has the call gone up to a number requiring the maintenance of 7 ambulances throughout the year. Each ambulance should be capable of removing six patients daily inside the City. On the whole, I am convinced that there is no necessity to maintain seven ambulances. At the most three may be retained which can cope with a maximum call of 18 per day by doing six trips each. The reduction of four ambulances would result in a saving of Rs. 20,102 on the maximum cost as under :—

Establishment Charges	Rs. 5,180
Maintenance Charges	,, 9,492
Petrol	,, 2,112
Stores	,, 786
	17,570
Depreciation on 4 ambulances	2,532
	20,102

The motor ambulance overseer should be retained, but he should act as a driver in addition.

Medicines and Disinfectants.

13. These are normally recurring charges falling under various minor heads under V. Public Health and VI. Hospitals and Medical Relief.

The aggregate charges amount to Rs. 59,170 or say Rs. 60,000 per annum. In my opinion if an arrangement is made with Government for supply of medicine and disinfectants from Government Medical Stores, as in the case of Vaccination, I think the Corporation will get the same quantity of drugs and nearly of equal quality, if not better, at Rs. 45,000 making a net saving of about Rs. 10,200.

14. As suggested in para 7 above, the Medical Superintendent has submitted his proposals for re-adjustment of his staff into (a) Permanent and (*b*) Temporary. They are as under :—

Present permanent	Proposed permanent.	Proposed temporary.
Arthur Road Hospital.		
2. Medical Assistants at 100-25/5-225.	1 Medical Assistant.	1 Medical Assistant.
3 Nurses at 100-5-150	1 Nurse	2 Nurses.
12 Ward Attendants at 25-1-30	6 Ward Attendants.	6 Ward Attendants
11 Sweepers at 23..	7 Sweepers.	4 Sweepers.
Maratha Hospital		
1. Compounder at 45-5-100 ..		1 Compounder.
2. Ambulance bearers at Rs. 18..		2 Ambulance bearers.
1. Masal. at Rs. 17		1 Masal.

This arrangement will not lead to immediate economy, but in the long run it will, for it will save the annual contribution rom the Municipal Fund to the Provident Fund of Rs. 882 per annum, and running interest on the accumulated balance which will be growing.

15. The Medical Superintendent further proposes at my suggestion that in other normal charges there should be differentiation between *permanent* and *temporary*. He would like to relegate the following amounts to temporary heading :—

	Amount to be relegated to temporary Head.
Arthur Road Hospital.	
	Rs.
II. Medicine	2,000
IV. Clothing	1,000
XII. Printing and Stationery	
(*a*) Printing	500
XIV. Laboratory	500
Maratha Hospital.	
II. Medicine	1,000
VII Contingencies ..	
(*b*) Books & Dead Stock	1,000
Total ..	6,000

16. The result of these investigations may be summarized as under :—

Retrenchment in fixed recurring establishment charges of the Arthur Road Hospital (para 9)		7,380
Retrenchment in the fixed recurring charges of the Ambulance Staff (para 12)		5,180
Retrenchment in the maintenance charges and depreciation relating to four ambulances to be reduced (para 12)	9,492	
	2,112	
	786	
	2,532	14,922
Reduction in medical charges without reducing the quantity and quality of drugs (para 13)		10,200
Total ..		37,682

17—11—24.

N. D. MEHTA
Retrenchment Officer.

HOSPITALS AND MEDICAL RELIEF.

Reconciliation of Mr. Mehta's proposals with actual savings on the tentative Budget for 1925-26.

Total of Mr. Mehta's proposals as given in Appendix XI	15,480	
,, ,, above	37,682	
Less		53,162
Difference between maxima and actual pay	7,388	
Cost of retaining one Infectious disease ambulance, M. C. agreeing to reduction of 3 only	5,722	
		13,110
Add		40,052
Retrenchments in fluctuating but recurring charges in excess of Mr. Mehta's suggestions		4,650
		44,702

APPENDIX XIII.

Subject :—**Retrenchments in the Conservancy and Halalkhore Branches.**

Administrative Arrangement.

1. The Road Conservancy and Halalkhore Branches are under the *general* control of the Executive Health Officer, and *special* control of an Officer designated as " Conservancy Assistant." The total departmental expenditure falls under the following major and minor heads of the Budget :

Statement showing growth of expenditure under Conservancy, including Halalkhore Branch.

Major Head.	Minor Head	1913-14	1920-21	Average 1921-22 to 1923-24	Budget 1924-25	Excess over 1913-14	Excess over 1920-21	Excess over Average
VII. A. Street Cleansing and Conservancy.	(a) Superintendence & Inspection	1,30,765	1,75,904	2,33,496	2,65,006	1,34,241	89,102	31,510
	(b) Veterinary	10,089	13,612	30,963	41,888	30,799	28,276	10,925
	(c) Street Cleansing & Sanitation	4,73,402	7,25,298	12,24,443	13,82,952	9,09,550	6,57,654	1,58,509
	(d) Gully Flushing	58,860	86,590	1,18,988	1,41,910	83,050	55,320	22,922
	(e) Removal of town refuse ..	4,62,858	10,17,475	12,41,700	13,52,496	8,89,638	3,35,031	1,10,796
	(f) Miscellaneous	34,620	63,844	67,107	67,255	32,635	3,411	148
	Total VII. A. ..	11,70,594	20,82,723	29,16,697	32,51,507	20,80,913	11,68,784	3,34,810
Xc. Halalkhore Branch ..	(a) Superintendence & Inspection	..	..	Included in (a) above		..	..	..
	(b) Cleansing and Sanitation..	4,21,969	4,72,872	6,27,104	6,37,734	2,15,765	1,64,862	10,630
	(c) Bullock Traction	64,051	1,61,162	1,61,498	2,20,003	1,55,952	58,841	58,505
	(d) Veterinary	..	..	..	..	..	..	..
	(e) Miscellaneous	32,163	40,333	46,158	60,700	28,537	20,367	14,542
	Total Xc. ..	5,18,183	6,74,367	8,34,760	9,18,437	4,00,254	2,44,070	83,677
	Grand Total VII. A. and Xc.	16,88,777	27,57,090	37,51,457	41,69,944	24,81,167	14,12,854	4,18,487

2. The administrative relation of the "Conservancy Assistant" with the Sanitary Staff under the Executive Health Officer seems to be defective. The rules of 1920 provide that "the Conservancy Assistant will be responsible for conservancy work under the direction of the Executive Health Officer and the Assistant Health Officers who will supervise it generally, and will inspect the work of the Conservancy Supervisors and Assistant Supervisors of the division. These Officers will be continuously in touch with the Assistant Health Officers. The Assistant Health Officers will, accordingly, be responsible for seeing that all conservancy work in their Wards is properly carried out. They will at once inform the Supervisors of any failure on the part of the Conservancy subordinate staff that may come to their notice, and where effective action does not follow, they will require the Conservancy Assistant to take such steps as may be necessary to secure the remedy of the conditions complained of."

3. The subordination of the Conservancy Assistant to the Executive Health Officer has a meaning. The Health Officer is the executive head of the Public Health Department, which includes Conservancy, and he must control the Conservancy Assistant. But the relations of the Assistant Health Officers with the Conservancy Assistant should not have been those of controllers and controlled. The history of this responsible post of Conservancy Assistant is interesting. The pay of the post was Rs. 350-500 before 1919. Mr. Monie in his scheme for re-organization of the Health Department staff in the medical, sanitary and Conservancy Branches stated that he would drop the proposal for the appointment of a Chief Superintendent of Cleansing on Rs. 1000 if the proposal for the revision of the pay of the Conservancy Assistant was accepted. In paragraph 11 of his note, prepared in consultation with the Health Officer, the Municipal Commissioner proposed revision of the pay of the post from Rs. 350-500 to Rs. 450-30-600, and recommended that the incumbent of the post (Mr. Higgins) should be put on the stage of Rs. 510 in the revised grade. He has "to deal with the payment of Bills, live stock, food and other stores, transport of refuse, etc., and to be responsible under the direction of the Health Officer and his Assistants for the supervision and control of the whole of the conservancy of the City, including town-cleansing, street-sweeping, refuse collection, super-

vision and control of halalkhore work, the control of bullock transport, and subject to certain powers reserved to the Deputy Executive Engineer, Mechanical Branch, of the motor wagons allotted to the Health Department."

4. This proposal was accepted by the Corporation under their resolution No. 13364, dated 1st March, 1920. On 3rd January 1923, a proposal for the revision of the pay of the appointment from Rs. 450-30-600 to Rs. 500-50-750 was submitted by the Municipal Commissioner, who also recommended that Mr. Higgins should be put on the stage of Rs. 650 with effect from 1st April 1923. This was also accepted by C. R. No. 9606 dated 5th February 1923.

5. It is evident that there have been two revisions of the pay of the post within three years, chiefly on account of *personal* merits of Mr. Higgins. He has risen from the rank and file in Municipal service through, "tact, patience, courage, and knowledge of local conditions." When he was declared fit to hold the post of Rs. 500-50-750 he should not have been made subordinate to the Assistant Health Officers whose grades are of Rs. 600-30-750 and Rs. 500-20-600 respectively. With reference to the sphere of conservancy, the Assistant Health Officers have to work on a tangent line and have no internal influence. It is power without responsibility in the Assistant Health Officers. The dual control over the conservancy staff, should, therefore, be brought to an end. The Conservancy Assistant should have the status of an Assistant Health Officer (Conservancy Branch) or Conservancy Superintendent under the direct subordination of the Health Officer. The scheme would fit in with the alternative method of combining the service of the Sanitary Inspectors (Medical Assistants in charge of Sections) with that of Conservancy Supervisors and Assistant Supervisors, in case the Corporation desires to adopt it. On the co-ordination and combination of the Sanitary and Conservancy service in the supervising branch, I intend to express my own views after examining the working of the Public Health Department.

6. It is true that the Conservancy Assistant does not require technical qualifications, but the pay of the post is now raised to such a pitch that a suitable candidate possessing British qualifications

for a First Class Health Officer could be secured on Rs. 500-50-750 on the retirement of Mr. Higgins. A second grade Health Officer in the Municipal service on Rs. 500-20-600 can safely expect to rise to the rank of Conservancy Superintendent on Rs. 500-50-750.

Classification of Charges.

7. The administrative charges fall under three main categories:

(*i*) Fixed and recurring charges, e. g., Establishment, labour, etc.

(*ii*) Fluctuating but normally recurring charges, e. g. Feed of bullocks, maintenance of mechanical plant, etc.

(*iii*) Fluctuating and non-recurring charges, e.g., New minor works executed from revenue and not from Loan Funds.

A business body or local authority must watch, while sanctioning expenditure, under what head the item falls. Special care is needed while sanctioning the first kind of expenditure. It involves permanent commitments and imposes a permanent burden on the general revenue. It entails not only a recurring payment in the form of salary and wages, but adds a recurring prospective burden of Provident Fund contributions or pension on the employer's exchequer. The subjoined table shows the growth of expenditure falling under class (*i*) under the conservancy and halalkhore departments only :—

Minor Head.	Sub-Head.	1913–14	1920–21	Average of three years preceding 1924–25.	1924–25 (Budget)	Excess over average.
		Street Cleansing and Conservancy.				
(a) Superintendence & Inspection.	I. Establishment	1,30,765	1,73,604	2,24,894	2,54,156	29,262
(b) Veterinary ..	,,	10,089	9,932	24,405	32,088	7,683
(a) Scavengering.	I. Labour	4,36,128	6,91,323	10,53,963	11,50,000	96,037

Minor Head	Sub-Head	1913-14	1920-21	Average of three years preceding 1924-25	1924-25 (Budget)	Excess over average
		Street Cleansing and Conservancy				
(b) Road Scraping.	Bullock Traction. I. Labour			91,724	1,11,000	19,276
(c) Road Scraping	Motor Traction. Estbt.			4,943	10,224	5,281
(d) Gully Flushing.	I. Establishment.	37,991	50,209	69,483	86,000	16,517
(e) Removal of town refuse	I. Motor Traction Estbt.	24,079	58,095	86,884	97,160	10,276
	II. Bullock Traction. Labour.		1,21,470	1,93,682	2,89,134	95,452
	III. Incinerator. Estbt.	682	1,059	1,335	552	— 783
	IV. Loading sidings.					
	A. Mahaluxmi II. Labour.	18,514	29,182	42,444	45,000	2,556
	B. Colaba. II Labour	5,470	7,330	9,579	11,280	1,701
	Total VIIA	6,53,718	11,42,404	18,03,336	20,86,594	2,83,258
		Halalkhore Branch.				
Cleansing & Sanitation.	I. Labour	4,05,030	4,34,737	6,11,177	6,20,000	8,823
Bullock Traction	,,		26,741	40,705	64,458	23,753
	Total Xc.	4,05,030	4,61,478	6,51,882	6,84,458	32,576
	GrandTotal	10,58,748	16,03,882	24,55,218	29,71,052	3,15,834

8. The total expenditure on Establishment and Labour Charges under VII. A. Street Cleansing and Conservancy in 1913-14 was Rs. 6,53,718; the average of the last three years was Rs. 18,03,336; while in the current year the Budget figure has gone up to Rs. 20,86,594. Similarly, the Labour Bill of the Halalkhore Branch was Rs. 4,05,030 in 1913-14; the average of the last three preceding years was Rs. 6,51,882; while the budget figure for the current year has risen to Rs. 6,84,458. It will be evident that the mere Establishment Charges and labour bills show an increase of Rs. 3,15,834 over the last three years' average.

Investigation of Expenditure under (a) Superintendence and Inspection.

9. There was a general re-organization in this Department in 1919-20. The Conservancy Assistant has now approved certain minor reductions in the clerical staff, which I have accepted in *toto*. With regard to the supervising and inspecting staff, I am of opinion that there is no necessity to retain 15 highly paid Assistant Supervisors (Rs. 150-10-250) between the Overseers and the Supervisors. In 1919-20, Mr. Monie stated that he required a total strength of 71 in the Supervising and Inspecting staff, consisting of 5 Supervisors, 12 Assistant Supervisors, and 54 Overseers. He added 12 extra men as leave reserve, bringing the total to 83 (exclusive of the Conservancy Assistant). This strength has now gone up to 92. I think the Senior Overseers can safely look after the 15 sections of the City, and the sectional distribution can be made as under :—

Ward.	Super-visors.	Sectional Senior Overseers.	Junior Overseers.		
			Sections.	Special.	Total.
A & B (North and South) ..	1	3	10	*3	13
C & D. ..	1	4	15	..	15
E (East & West) ..	1	3	14	†2	16
F ..	1	2	7	..	7
G (South & North) ..	1	3	9	..	9
	5	15	55	5	60
			20 Grand Total 80		

*Motor loading. †Tardeo Flats.

The leave reserve of 12 persons is too much. A scale of 5 per cent will require an extra strength of five, and this I have included in the sectional arrangement, for there are in all 50 sections, while the distribution under Junior Overseers is of 55 persons. These extra five men should be a supernumerary staff of "apprentices" expecting to be absorbed in the regular staff of 50 Junior Overseers, whose pay is fixed on the time scale. These apprentices may be kept on the minimum pay of Rs. 55 and may have leave concessions. When any one of them is absorbed in the regular service, his previous service may be taken into consideration when fixing his initial pay, ranging from Rs. 55 to Rs. 100, while his place may be filled up by a new recruit on Rs. 55 only.

10. Again, the extra allowance to all officers and servants drawing Rs. 60 and above should cease, and to prevent hardships, deserving cases of the present incumbents should be given one extra increment in their progressive salaries.

11. The reduction of Assistant Supervisors (Rs. 150-10-250) may cause hardship in the case of the permanent incumbents, but I am of opinion that these men, who have all passed the Sanitary Surveyors' Examination, should be absorbed in the cadre of Junior Medical Inspectors (Rs. 200-10-300), and Medical Assistants in Charge of Sections (Rs. 100-25/5-225) under Budget Head V., P. H. D. No medical qualification is needed for general sanitary supervision in sections, for Mr. Monie in his re-organization scheme, observed in paragraph 8 thereof:—"The reservation of all posts in the Sanitary Branch for medical men should be regarded as experimental. It has not been the experience of other countries that medical men make the best Sanitary Inspectors. In the present conditions in Bombay, the arrangement I have proposed seems advisable, but it will not improbably be expedient, a few years hence, to recruit for this branch largely from men who have been trained in sanitary work in such institutions as the Victoria Technical Institute."

12. When a general retrenchment policy is adopted this class of old servants of good experience in the Conservancy Department and with Sanitary Diplomas, should be preferred to mere medical novices on the sanitary staff, so as to prevent hardship.

13. The result of this retrenchment in "VII, A. Street Cleansing (*a*) Superintendence and Inspection, I. Establishment" (Rs. 2,54,156) is a recurring saving in Fixed Charges of Rs. 65,640 based on the maximum pay of the grades.

Fixed Recurring Charges under VII, A. (b) Veterinary.

(I). Establishment.

14. In 1913-14 the establishment charges amounted to Rs. 10,089; in 1920-21 they stood at a low figure of Rs. 9,932; in the subsequent three years, the average expenditure stood at Rs. 24,405; while in the current year the figure stands at Rs. 32,088. It appears that the increase is partly due to normal increments in pay, and partly to the increase in establishment in 1921-22 to 1923-24. The following additions are traceable :—

	Maximum Cost.
	Rs.
1 Clerk @ Rs. 60-5-150 for clerical work at the Bullock Hospital 150×12	1,800
1 Veterinary Overseer @ 75-5/2-100+10 E. A. for the newly built stables at Parbhadevi (100+10) × 12..	1,320
1 Assistant to the Senior Veterinary Inspector @ 150-5-200+10 E. A. (200+10)×12	2,520
1 Mukadam @ 21+5 E. A. 26×12..	312
3 Bigarries @ 18+5 (men) 23×3×12	828
2 Bigarries @ 14+5 (women) 19×2×12	456
1 Ramoshi @ 16+5 E. A. 21×12	252
2 Cart Drivers @ 19+5 E. A. 24×2×12	576
Total Rs.	8,064

The staff enumerated in the last six entries was added in 1923-24 for the segregation hospital for animals at Tardeo flats, which has been recognized by Government as an infirmary under the Prevention of Cruelty to Animals Act. Taking into consideration the average number per day, 1.5, of animals admitted under the Magistrate's orders, I am of opinion that a full time Assistant to the Senior Inspector is not needed. A duty allowance of Rs. 25 may be

attached to the post of one of the three Inspectors for this additional duty. This arrangement will bring a net recurring saving of Rs. 2,220 per year as under:—

	Rs.
Maximum emoluments of one Assistant to the Senior Inspector to be *reduced* .. ..—	2,520
Maximum duty allowance to one of the Inspectors at Rs. 25×12 to be *added* .. ..+	300
—	2,220

The Municipal Executive should, at the same time, see that all fine proceeds under the Special Act, and the cost of feeding and treating of animals neglected by the owners, are duly recovered from Government and owners respectively.

15. The opening and maintaining an Infirmary for the reception and treatment of animals sent by Magistrates under the Prevention of Cruelty to Animals Act, 1890, is not an obligatory duty imposed upon the Corporation under section 61 of the City of Bombay Municipal Act, 1888. As the local Government declared the Municipal Veterinary Hospital at Tardeo flats as an infirmary by a notification under section 6 (2) of the Prevention of Cruelty to Animals Act, as amended by Bombay Act XIII of 1922, the Corporation sanctioned the requisite staff mentioned above. But the whole " cost of transport to the infirmary and the treatment, feeding and watering of the animals in the infirmary shall be payable by the owner of the animal according to such scale of rates as the Commissioner of Police (in a Presidency Town) may from time to time prescribe. If the owner refuses or neglects to pay such cost and to remove the animal within such time as a Magistrate may prescribe, the Magistrate may direct that the animal be sold, and that the proceeds of the sale be applied to the payment of such cost." (Vide sub-sections (5) and (6) of section 6 of the Act as amended).

16. It will thus be seen that the cost of transport, treatment, feeding, and watering of animals admitted is not to fall on the general rate-payers of Bombay, but on the owners who neglect their animals. Besides under the principles laid down in G. R. No. 144, dated 24th April, 1894 C. D., fines levied under the Prevention of Cruelty to Animals Act for offences within Municipal limits are to be credited to the Municipal Fund. Enquiry may

therefore be made whether the cost is recovered from the owners of animals and whether fine-proceeds are recovered from the judiciary by the Municipal Treasury. If these sources of revenue are secured, the cost of maintaining an infirmary will not fall on the general revenues of the Corporation.

Fixed and Recurring Charges under VII. A. (c) Street Cleansing and Sanitation.

17. This minor head has three sub-heads :—

(*A*) Scavengering

(*B*) Road Scraping—Bullock Traction

(*C*) ,, ,, Motor ,,

The labour Bill under scavengering was Rs. 4,36,128 in 1913-14; it rose to Rs. 6,91,323 in 1920-21; the average bill per year in the succeeding three years was Rs. 10,53,963 and the current Bill has gone up to Rs. 11,50,000 (exclusive of past year's savings). I have examined carefully the facts and figures relating to the strength of the scavengering staff, and have come to the conclusion that the strength of labour is disproportionately high. The investigation has been made from the following standpoints :—

(*i*) Comparison of labour strength with other Presidency towns of India.

(*ii*) The standard of work per scavenger determined in other countries.

(*iii*) The actual working of the Department.

The total strength of labour under (*A*) Scavengering, consists of 4,683 persons of various designations (vide p. 33 of the Establishment Schedule. The City of Madras (population 5,26,911) has a strength of 1,059; while the City of Calcutta (population 11,32,256) has a strength of 4,038 (exclusive of the staff of bhisties and 66 allowance holders). It is true that Madras cannot be compared with Bombay, but Calcutta is nearly equal to Bombay both in population and importance. Both the cities have a large population of similar habits. In proportion to population (which in Bombay is 11,75,914) the strength of scavengers in Bombay should be 4,193 as against 4,683. There is thus an excess staff of 490 persons.

18. Secondly, a reference to page 169 of the Administrative Survey of the Government of the City of New Orleans (U.S.A.) submitted by the Municipal Survey Commission, in January 1922,

will show that in the congested business districts of that city, patrolmen should be held responsible for cleaning about 5,000 sq. yards or roughly an acre (4,840 sq. yards). The working principles laid down are :—

(1) In the congested business districts, patrolmen should be held responsible for about 5,oco squaer yards.

(2) In the residential districts, patrolmen should be held responsible for about 20,000 square yards.

(3) In outlying residential districts having comparatively little traffic, streets need to be gone over only every other day or even less frequently.

(4) In mixed districts, or on streets where unusual conditions exist, the area allotted should be adjusted between the two limits as conditions demand.

19. Thirdly, the examination of the actual working of the scavengering staff also shows that the strength is more than necessary. The Municipal roads of various kinds are as under :—

	Miles.	
Setstone	4.87	
Asphalt	10.75	
Concrete	0.50	
Tarred	49.87	
		65.99
Ordinary Macadam		116.00
Total ..		181.99

It is evident that out of these 181.99 miles, 65.99 miles are such as require very little scavengering work. Taking the mean width of nearly 66 miles of road at 50 feet, the aggregate square area of the said roads comes to about 19,36,000 sq. yds. It follows, therefore, that out of 65,52,522 sq. yds. of road surface to be cleaned 19,36,000 sq. yds. are meant for flushing rather than for sweeping. The actual number of scavengers employed on road cleaning is 3,296 which implies that each scavenger on an average looks after only 1,988 sq. yds. of road surface during the eight hours of a working day.

Assuming that our scavengering staff is inefficient as compared with Western Countries, we can expect them to do the cleansing of at least 2,500 sq. yds. of road surface—men sweeping and women collecting the refuse for depositing in the dust bin carts. The real position stands as under:—

Total sq. area of roads & gullies to be swept.	Sanctioned strength scavengers.			Actual strength employed on road & gully cleansing.			Average area per head of sanctioned strength.	Average area per head of actual strength.	Average number of scavengers required on 2500 sq. yd basis.
	Men.	Women.	Total.	Men.	Women.	Total.			
Sq. Yds.							Sq. Yds.	Sq. Yds.	
65,52,522	2332	1561	3893	1804	1492	3296	1,684	1,988	2,620
Add Scavengers employed on Other duty.				445	50	495			
				2249	1542	3791			
Vacancies. ..				83	19	102			
Sanctioned strength ..				2332	1561	3893			

20. It will thus be seen that the proper strength required for road cleansing on the basis of 2,500 square yards is 2,620 ; the actual strength employed on the said work is 3,296 ; while the sanctioned strength is 3,893. It appears from the detailed statements supplied by the Department that a considerable number of scavengering men and women are employed on stables, and not on road conservancy work. But even on the actual strength (3,296) employed on road conservancy we find that each scavenger looks after only 1,988 sq.yds. On the standard of 2,500 sq. yds.—the suggested minimum—we find that there is an excess staff of 676 persons (men and women).

21. If the ideal is kept for reaching the minimum work of 3,000 square yards per scavenger, a further reduction of 436 in the strength of scavengers would be possible in future. The accom-

panying table gives an idea of the Ward areas to be cleaned and the present distribution of scavengers therein :—

Ward No. 1	Area in square yards.				Number of scavengers employed.		
	Old Roads 2	New Roads 3	Gullies. 4	Total. 5	Men. 6	Women. 7	Total 8
A.	13,79,361	115,302	30,682	15,25,345	318	176	494
B (South)	2,79,462	..	15,193	2,94,655	160	96	256
B (North)	3,23,105	8,019	21,822	3,52,946	183	118	301
C.	5,90,481	666	53,199	6,44,346	360	276	636
D.	7,51,396	17,208	34,168	8,02,772	286	212	498
E (East)	9,33,488	55,848	27,539	10,16,875	302	198	500
E (West)	3,10,969	7,036	25,266	343,271	153	100	253
F.	387,998	1,33,674	9,782	5,31,454	206	154	360
G (North)	303,556	..	8,319	3,11,875	98	77	175
G (Centre)	214,656	1,21,264	14,131	3,50,051	107	80	187
G (South)	370,018	..	8,914	3,78,932	76	55	131
Total ..	58,44,490	459,017	249,015	65,52,522	2249	1542	3791
Deduct staff employed on other work, stables etc.					445	50	405
Net staff actually employed on road conservancy only.					1,804	1,492	3,296

22. The reduction in the scavengering staff necessitates a reduction in the number of Mukadams. The Conservancy Superintendent himself proposes to reduce the staff of mukadams from 180 to 140. This is quite reasonable, and may be accepted. He also proposes a reduction of 16 Patels. As a matter of fact, only 15 Patels are employed. The reduction is, therefore, in conformity with the actual needs of the Department. The remaining labour staff under A. Scavengering, is adequate.

The financial effect of the retrenchments recommended under sub-head A., Scavengering, is an annual recurring, saving of Rs. 1,90,976.

23. Expenditure on Road scraping was originally controlled by the Engineering Department, but in 1921-22, this work was transferred to the Conservancy Department. Though road scraping is more of an engineering work than conservancy work the Corporation has decided, in view of local conditions, that it should be done by the Conservancy Department. It is a question of policy to be determined by the Municipal Corporation. From a fiscal point of view, there should be no dual control over the motors, and any increase in the cost of maintaining motor lorries should be met from corresponding saving in Bullock Traction cost. The last principle has not been observed, for I find that, even after the bodily transfer of the bullock traction staff in 1922-23 from the Road Department to the Conservancy Dept, new Laffley Motor sweeping machines have been purchased, and 8 motor drivers and 8 cleaners have been added without any reduction in the Bullock Traction Staff. The following reduction in this section is therefore needed :—

	Rs.
2 Mukadams at Rs. 19 each per month	600
21 Bigarries (men) at Rs. 23 each p. m.	5,796
21 ,, (women) at Rs. 19 each p. m.	4,788
	11,184

The cost of the Motor Traction Staff is as under :—

8 Motor Drivers at 70-3-85+10 E. A=95×8×12 ..	9,120
8 Motor Cleaners at 17+5 E. A.=22×8×12 ..	2,112
Total Rs.	11,232

Thus the reduction in Bullock Traction Staff under sub-head (*b*) will be nearly equal to the cost of staff on motor lorries under sub-head (*c*).

24. The extra cost of Labour under sub-head (*d*) Gully Flushing is unavoidable. An additional staff of 1 Mukadam, 1 Engine Driver and 20 Bigarries was sanctioned this year for the gully-flushing engine proposed to be purchased for G Ward (North). The staff is not yet employed, and there will be this year a saving for re-appropriation.

Fixed recurring charges under VII (e) Removal of town refuse, (2) Bullock Traction and under X (C) Halalkhore Branch (c) Bullock Traction.

25. I am taking together the Bullock Traction recurring expenditure under the minor heads VII (A) and X (*c*), because both the staff and the equipment are interchangeable. A careful examination of the distribution of live-stock and cart-drivers reveals some astounding facts. The Corporation have sanctioned a permanent staff of 890 cart-drivers—679 under VII. A. (*e*), and 211 under X C (*c*). They have also made provision for employing, if necessary, 170 cart-drivers as a *temporary* measure (Vide footnote(*a*) on page 46 of the 1924-25 Budget). The total *sanctioned* strength of cart-drivers is thus of 1,060 servants.

26. Now the actual numbers of pairs of bullocks which are on the working list and on the reserve list is 896 and 24½ respectively. The maximum number of drivers required is therefore 921 ; whereas the actual number of drivers employed is 1012, that is to say, 91 drivers are paid their monthly wages without any specific work. Each driver's monthly pay is Rs. 19+5=24. It follows, therefore, that a sum of Rs. 26,208 per year is wasted on drivers (24×91×12=Rs. 26,208).

	Summary	pairs.
(1)	Sanctioned Strength of Bullocks	1,162
(2)	No. of bullocks actually at work	896
(3)	No. of bullocks sick in stables and hospitals ..	236½
(4)	No. of spare bullocks	24½
	Total ..	1,157
(5)	Percentage of sickness	24.71
(6)	Sanctioned strength of cart-drivers	1,060
(7)	Cart-drivers employed on scavengering carts ..	555
(8)	Cart-drivers employed on Iron carts	121
(9)	Cart-drivers employed on road scraping carts ..	154
(10)	Cart-drivers employed on Cesspool carts ..	178
(11)	Cart-drivers employed on dog carts	4
	Total ..	1,012
(12)	Excess of cart-drivers employed over working and spare pairs of bullocks (2+4) say ..	91
(13)	Unnecessary extra expenditure thereon	Rs. 26,208

27. Again, the proportion of the sick animals to the live stock maintained is 24.71 per cent. Such a high ratio of sickness leads to the following conclusions :—

(1) That no proper care is taken at the initial stage of purchasing animals especially with regard to their breed, soundness and age.

(2) That although the Municipality are spending Rs. 34-6-0 per pair of bullocks per month in feeding them according to standard rations, animals are either not properly fed or otherwise neglected.

(3) That the animals are roughly handled in the Wards by drivers.

28. The matter requires proper investigation, for the municipal stables should not be turned into pinjrapoles. If about 236 pairs remain sick out of 1157 pairs, it implies that the Municipality is pending Rs. 96,288 per year on sick and inefficient animals, 236×34×12=96,288), as if it were a Society for Prevention of Cruelty to Animals working on humanitarian lines. The Municipality employs a highly paid veterinary staff, and it is necessary that the ratio of sickness among bullocks should be reduced on economical grounds.

29. Under the existing conditions the maximum number of drivers required is 940, *i.e.*, for 896 working pairs of bullocks *plus* 24½ or say 24 spare pairs *plus* 20 extra strength. The permanent schedule authorises the employment of 890 permanent drivers. The temporary strength of 170 should, therefore, be reduced to 50. The normal strength will thus be :—

679	permanent	drivers	under Conservancy,
211	,,	,,	,, Halalkhore Branch,
50	temporary	,,	,, Conservancy.
940	Total.		

30. The reduction proposed will result in a net recurring saving of Rs. 34,560 per annum as under:—

Present cost of 1060 drivers at Rs. 19+5=24 p.m.

1060×24×12= 3,05,280

Proposed cost of 940 drivers at Rs. 19+5=24 p.m.

940×24×12= 2,70,720

Net saving Rs. 34,560

Fixed Recurring Charges Under x c (b) Clearing and Sanitation.

31. There are 50 Mukadams and 2,224 Halalkhores (including vacant ground cleaners) on the sanctioned schedule. The actual strength employed is as under :—

	Actual.	Vacancies.
Mukadams	49	1
Basket Halalkhores ..	1,379	
Vacant ground cleaners	228	
Latrines and Urinal cleaners	256	
Bungalow Halakhores ..	179	30
Depot men.	33	
Cesspool cart fillers ..	111	
Special Halalkhores ..	8	
	2,194	31

The Conservancy Superintendent in his report dated 24th April, 1924, states: "There are at present 2199 halalkhores at work. After considering careful directions in which economies can be made a redistribution has been devised, by which this number can be reduced by 100 to 2099". As a matter of fact, the latest distribution list, dated 14th October 1924, shows that the total strength employed is 2194, showing only vacancies of 30 men. There is possibility of further reduction of seventy men in the strength of halalkhores. There are 228 halalkhores employed as "vacant ground cleaners" on 1614 acres. The whole of the area is not used to answer the call of nature. Similarly, the strength of 256 halalkhores on 877 water closets (full flushing seats) and 637 urinal seats, total 1514, indicates that these halalkhores have not got full time work, in as much as each halalkhore has to look after only 6 seats per day. The real hard worked halalkhore in this branch is the one who works in "basket cleaning." There are 21,545 traps on which 1379 halalkhores are employed, giving a ratio of 15 baskets per halalkhore. It is for the head of the Department to see which section of service is hard worked and which is light worked. My proposal is that if a careful distribution of work is made the Conservancy Superintendent should be able to

reduce three mukadams and one hundred halalkhores. The financial effect of this retrenchment will be a saving of Rs. 29,136.

32. The following is the summary of retrenchment under "Fixed Recurring Charges" discussed in this note :—

	Major Heads	*Minor Heads*	*Total.*
Para 13 ..	..VII A.	(*a*) Superintendence & Inspection	65,640
„ 14 ..	.. „	(*b*) Veterinary ..	2,220
	„	(*c*) Street Cleansing & Sanitation.	
„ 22 ..	..	A. Scavengering	1,90,976*
„ 23 ..	..	B. Bullock traction.	11,184
„ 30 ..	..	(*e*) Removal of town refuse. Bullock traction	34,560
„ 31 ..	.. XC.	(*a*) „ „	
	„	(*b*) Cleansing and Sanitation ..	29,136
		Total ..	3,33,716

N. D. MEHTA,

30—10—24. Retrenchment Officer.

*If the staff of scavengers to be employed on road conservancy is kept on the basis of 3,000 square yards per bhangi (as against 2,500 proposed in para 19), there is further scope for retrenchment to the extent of Rs. 1,10,928 as under :—

Total square yards to be swept	65,52,522
Total strength required at 3,000 per head of scavenger ..	2,184
Strength actually employed on Road Conservancy only..	3,296
Excess strength	1,112
Deduct strength already proposed for reduction.. ..	676
Further strength to be reduced	436

At the ratio of 55 males to 45 females, the strength of males to be reduced would be 240; and of females 196. The annual cost which would be saved in addition to the figures given above, would be :—

240 × 28 × 12	66,240
196 × 19 × 12	44,688
Total	1,10,928

MODIFICATIONS of the above proposals made by the Retrenchment Adviser after conferences with the Municipal Commissioner, Health Officer and Conservancy Superintendent.

Para 9. The Retrenchment Officer's proposals to abolish 15 posts of the Assistant Supervisors, and to create 3 plus 12 posts of Senior Overseers were not accepted. The Municipal Commissioner, however, agreed to reduce the strength of Supervisors from 5 to 3 ; of Assistant Supervisors from 15 to 10 ; and of Overseer from 72 to 66. The Retrenchment Adviser accepted these alternative proposals.

Para 14. In the Veterinary staff, instead of abolishing the post of the Assistant to the Senior Veterinary Officer (Rs. 2,520) and attaching a duty allowance of Rs. 25 p. m. (Rs. 300 per annum) to one of the Inspectors, the Retrenchment Adviser agreed to abolish the post of one clerk of Rs. 60-5/2-150(Rs. 1,800 maximum only).

Para 21 and Note at the end of the Summary. The proposal to reduce further the strength of Scavengers by 436 on the minimum standard of 3,000 square yardsper bhangi was found to be too drastic a step for the present. The further retrenchment of Rs. 1,10,928 pointed out at the end on that *alternative* basis of work was, therefore, not accepted.

Para 31. The proposal to reduce the strength of Mukadams by three was not accepted, but the strength of Halalkhores was reduced from 2,224 to 2,100.

APPENDIX XIV.

Subject :—**Transport charges in the Conservancy and Markets Departments.**

Appendices XI and XIII deal with the retrenchment of " Fixed Recurring Charges " of the Public Health and Conservancy Departments. This note deals with the possible retrenchments in the second class of expenditure referred to in para 7 of appendix XIII *viz.*, " Fluctuating, but normally recurring charges." Since the completion of my investigations into the expenditure of the Conservancy and Public Health Departments, the Retrenchment Adviser has asked me to examine the expenditure of a few minor departments. The department of Markets and Slaughter-houses (Gross expenditure—Rs. 5,10,852) has an analogous recurring charge of motor traction for meat conveyance, and for offal removal. It appears that the original traction service by bullocks in the various departments has been gradually replaced by motor service which is under dual control. The technical supervision of the motor equipment of all departments is under the control of the Mechanical Engineer but the responsibility of reducing departmental service charges through that agency rests with various departmental heads working under different controlling officers. The expenditure on motor traction or motor service is debited to the following budget heads :—

	Departmental Head.	Controlling Officers.
VI Hospitals and Medical Relief.	Medical Superintendent.	Executive Health Officer.
VII Street Cleansing and Conservancy.	Conservancy Assistant	do.
XIV. Markets and Slaughter houses.	Markets Superintendent.	Deputy Municipal Commissioner.

There are also many departments, e. g. Water Works, Roads and Overbridges, and Fire Brigade in which there is a motor service. But as these departments are not under my investigation, I have not scrutinized the figures of expenditure. There is a kind of dual and sometimes triple control over the working of motors. The departmental officers merely certify expenditure, and the Mechanical Engineer debits the expenditure to various Budget allotments. With regard to the Ambulance service under VI

Hospitals and Medical Relief, there is in fact triple control. The ambulance motors are under the control of the Mechanical Engineer, the stores etc., are certified by the Conservancy Supervisors or Assistant Supervisors; while the expenditure is debited to VI Hospitals and Medical Relief, under the Medical Superintendent, who does not know whether the expenditure is properly incurred.

2. This question of the control of the Mechanical Transport will, I understand, be dealt with by the Retrenchment Adviser in his report on the re-organization of the engineering departments.

Motor Traction in Minor Departments.

3. In appendices XII and XV, I have shown to what extent expenditure on motor service can be reduced in minor departments. The following is the summary of suggested retrenchments in these departments :—

VI. Hospitals and Medical Relief.	
Ambulance service	20,102
XIV. Markets and Slaughter-houses	
Meat carriage motor traction ..	21,984
Total ..	42,086

Motor Traction in Conservancy Department.

4. The administrative charges in 1924-25 connected with motor service in the Conservancy Department amount to Rs. 3,48,291 as against the average of Rs. 3,c4,143 in the preceding three years, showing an excess of Rs. 44, 148. If we take into consideration the numbers of motors employed in the preceding three years, we find that there is no appreciable increase in the cost of motor traction, *as such*. The subjoined table shows the particulars about the numbers of motors employed on transport of town refuse :—

Year.	No. of motor lorries employed.	Average recurring cost per ton. mile.
1921-22	17	0 11 0
1922-23	18	0 6 8
1923-24	20	0 5 9
1924-25	20	0 4 7

The average number of motor lorries employed in the last preceding three years was 18⅓ at an average cost of Rs. 3,04,143 per year. As against that we now employ 20 motor lorries at an estimated cost of Rs. 3,48,291. The proportionate cost should be Rs. 3,42,700 as against Rs. 3,48,291. showing an excess of Rs. 5,591 which is accounted for by the normal rise in the wages of time scale employees. Thus motor traction itself appears to be working satisfactorily but when its working is examined in connection with Bullock Traction there is scope for reduction of 4 motors as will be shown at a later stage.

Bullock Traction.

5. But the anomalous position is with reference to the cost on bullock traction which not only does not show any reduction, but shows a steady rise in spite of the increase in the motor equipment as shown above. The following table shows the growth of expenditure on bullock traction and motor traction separately :

Growth of Expenditure under Bullock and Motor Traction in the Conservancy Department.

Budget Head.	1920–21			Average of the preceding three years (1921–22 to 1923–24)			1924–25			Excess over average.		
	Motor.	Bullock.	Total.	Motor.	Bullock.	Total.	Motor.	Bullock.	Total.	Motor.	Bullock.	Total.
VII. Street Cleaning and Conservancy..	1,65,450	7,38,409	9,03,859	3,04,143	9,40,812	12,44,955	3,48,291	10,56,634	14,04,925	44,148	1,15,822	1,59,970
X c. Halalkhore Branch..	..	1,61,162	1,61,162	..	1,61,498	1,61,498	..	2,20,003	2,20,003	..	58,505	58,505
Total	1,65,450	8,99,571	10,65,021	3,04,143	11,02,310	14,06,453	3,48,291	12,76,637	16,24,928	44,148	1,74,327	2,18,475

6. In Road Conservancy the bullock traction cost amounts to Rs. 10,56,634 as against Rs. 9,40,812, the average of the preceding three years, showing an excess of Rs. 1,15,822; in the Halalkhore Branch, where there is no motor traction service, the cost of bullock traction amounts to Rs. 2,20,003, as against Rs. 1,61,498, showing an increase of Rs. 58,505. The total excess in bullock traction under the control of the Conservancy Superintendent amounts to Rs. 1,74,327.

7. In order to ascertain the requirements under bullock traction, the first factor to be ascertained is the approximate quantity of refuse to be removed daily. In large English Towns the production of refuse is calculated at 1.52 lbs. per head per day or .25 ton per head per annum. The population of Bombay is 11,75,914 and on the English formula the maximum quantity of refuse produced would be $11,75,914 \times .25 = 293,978$ tons per year or 805 tons per day. It may be noted that the whole of this quantity is not removed from the city and the Conservancy Superintendent's report dated 17th July 1924 shows that about 500 cartloads remain inside the city, *i.e.*, 500×9 cwts. $= 4500$ cwts. or 225 tons. The tables supplied by the Conservancy Department from time to time are so conflicting that no proper inference can be drawn therefrom. The lowest figure is 682 tons per day according to the administrative Report of 1923-24; while the highest is 1,166 tons per day according to the latest reports, dated 18th November 1924 and 25th November 1924. If we take 2 lbs of refuse per head as a basis, the quantity produced per day would go up to 1,050 tons. I think, however, that Bombay refuse consists more of garbage than of ashes etc., that the most reliable figure is 900 tons per day *produced*; and that the quantity actually *removed* per day varies from 700 to 800 tons. The maximum transport equipment should therefore be for 900 tons a day.

8. Dr. Turner has actually worked out the cost of removal of one ton of kachra by bullock traction on page 84 of his book on "Sanitation in India" (second edition 1917). This was worked out on the basis of the actuals for the five years preceding his investigations.

9. I append a comparative table of the old and present rates from which it will be seen that the old cost was Re. 1-10 per ton, and that it should now be Rs. 2-7 per ton according to rise in prices and wages:—

Table showing cost of haulage of household and street refuse by bullocks.

	1913-14	1924-25
(*a*) Cost of a pair bullocks	160	225
(*b*) Feed of a pair of bullocks at Rs. 23 (1913-14) and at Rs. 34 (1924-25) per mensem for 5 years.	1380	2040
(*c*) Shoeing and Veterinary treatment for a pair at Rs. 3 per month 3×12×5	180	180
(*d*) A cart cost Rs. 260, in 1913-14 and Rs. 350 in 1924-25 and by taking the total number of carts, scavengering and drain, it works out to that each pair of bullocks has 2 carts, hence	520	700
(*e*) Repairs to (*d*) for 5 years	300	500
(*f*) Stabling accommodation for (*a*) and (*b*) 15 p.c. of 300 (1913-14) 15 p. c. of 500 (1924-25) ..	45	75
(*g*) A cart-driver's pay in 1913-14 was Rs. 13 p.m. and now is Rs. 24 p. m. but deducting absentees will make the average	780	1440
(*h*) Accommodation for cart drivers at 10 p.c.	78	144
5 years ..	3443	5304

Rise 154 p.c.

A pair of bullocks during a period of 5 years removes 2190 tons ; the cost of removal in 1913-14 being therefore Rs. 1-9-2 per ton or say Rs. 1-10, and in 1924-25 Rs. 2-6-9 or say Rs. 2-7-0.

10. The cost for removing 900 tons per day at Rs. 2-7-0 would be Rs. 2194 per day or Rs. 8,00,810 per year. Now let us compare the actual cost :—

Budget head.	Average per year on actuals for 1921-22 to 1923-24	Budget for 1924-25	Budget for 1925-26. (Draft.)
VII (c) (B. I.) Bullock traction ..	1,00,274	1,51,500	1,31,500
VII (e) (4) Bullock traction ..	8,40,538	9,05,134	8,39,380
	9,40,812	10,56,634	9,70,880

The reduction of Rs. 85,754 proposed in the draft budget for 1925-26 is on account of the introduction of two new electric lorries to be purchased next year. It is not the result of general economy in Bullock Traction. As a matter of fact the cost of bullock trac-

tion should come down to the total of Rs. 8,00,810 as against Rs. 9,70,880, giving a reduction of Rs. 1,70,070. It may be noted that the above figure is for the cost of bullock traction only for 900 tons of refuse per day, irrespective of the motor and electric traction service, which is a supplementary equipment.

11. It is for the departmental head to suggest how the object aimed at, viz ; reduction of cost to the extent of Rs. 1,70,000, can be secured by redistribution of work. As an outsider I cannot hazard an opinion as to how the ward arrangements should be made. But I have no hesitation in putting my own outline of retrenchment, even on the existing arrangements of removal of town refuse. The sub-joined table gives a birds' eye view how reduction to the extent of Rs. 1,81,332 can be effected in the combined motor and bullock traction service in the Conservancy Department irrespective of the combined service connected with Road Scraping Branch :—

(*i*) *Bullock Traction Excess*

		Tons per day.
1.	Total quantity of refuse to be removed per day according to the European standard of .25 ton per head per year. 1,17,594 × .25=2,93,978 tons per year or 805 tons per day.	805
2.	Total quantity of refuse to be removed per day according to the Bombay standard of 2 lbs. per head as laid down by Dr. Turner, late Health Officer.	1050
3.	Total refuse as per administration report 1923–24. Daily cartloads of all kinds—6,61,461 in a year i.e. 1812 cartloads per day. 1812 × 9 cwts= 16,308 cwts i.e., 815 tons.. .. .. .. NOTE : The daily number of cart loads of Municipal refuse is 553,913, in a year i.e. 1,518 cartloads per day i. e. 1518 × 9=13,662 cwts =682 tons only	815
4.	Total quantity of refuse removed according to the Conservancy Superintendent's report dated 17th July 1924. 2000 cartloads × 9 cwts=1800 cwts.	900
5.	Total maximum quantity of refuse which can be removed by frequent trips. 2500 cart loads × 9=22,500 cwts.	1125

Tons per day.

6. Real quantity which is taken for ascertaining the normal equipment 900

7. Maximum quantity of kachra which can be removed by our present equipment as per the Conservancy Superintendent's notes of 18-11-24 and 25-11-24 .. ..

	No. of carts.	No. of trips.	Total tons at 9 cwts. per cart.	
(*a*)	166	487	219	To motor loading stations.
(*b*)	796	2027	914	To places other than motor loading stations.
	962	2514	1133	
	Motor loads direct from wards.			
(*c*)	8.38		33.52	Tons at 4 tons per load.
		Total	1166.52	

8. Actual trips made as per Conservancy Superintendent's report of 26th November 1924. 1957 × 9 = 17613 cwts.= 880 tons

9. Estimated extent of surplus cart equipment :—

(*a*) Total maximum kachra which can be removed by carts is 1133 tons.
Deduct refuse to be removed .. .. .. 900 ,,
Excess tonnage .. 233 ,,
or 4660 cwts.

(*b*) Now each cart can convey in one trip 9 cwts. and it makes 2 trips per day on an average. Therefore 4660 divided by 18 cwts. shows that 259 carts can be reduced.

(*c*) *Savings.*

	Rs.	Rs.
(*i*) 259 pairs of bullocks × Rs. 34 per pair, per mensem × 12 =	1,05,672	
(*ii*) 259 Drivers × Rs. 24 per mensem × 12 =	74,592	
		1,80,264
10. Deduct $\frac{1}{4}$th surplus required to meet breakdowns		45,066
11. Net retrenchment possible		1,35,198

(ii) Motor Traction excess.

1.	Maximum quantity of refuse which is taken to the two loading stations of Palton Road and Bapty Road according to the Conservancy Superintendent's reports dated 18th November 1924 and 25th November 1924.	
	37.37 Pathan Road. 21.87 Bapty Road.	
	59.24 Motor Loads. 4	
	236.96 Tons per day, or say.	Tons. 237
2.	Refuse removed by motors direct from wards. 8.38 motor loads, i.e. 33.52 tons or in round figures	34
3.	Total refuse available for removal by motors ..	271
4.	Present equipment 20 motors × 75 tons × 4.5 trips (Vide Mechanical Engineer's report of 7th November 1924) = 337.50 or say	338
5.	Excess equipment of motors. .. .. .. i. e. 4 motors × 4 tons × 4 trips = 64 tons are in excess.	67
6.	Total cost of 20 motors Rs. 3,17,560 (Vide page 47 of the Budget) for 1925-26, i. e. Rs. 15,378 per motor	Rs.
	15,378 × 4 motors to be reduced=	61,512
7.	Deduct ¼th or 25 per cent reserve to meet breakdown	15,378
8.	Net retrenchment possible	46,134
	Total scope of retrenchment in Bullock Traction ..	1,35,198
	Total scope of retrenchment in Motor Traction ..	46,134
	Rs. ..	1,81,332

N. D. MEHTA

27—11—1924. Retrenchment Officer.

MODIFICATIONS of the above proposals made by the Retrenchment Adviser after conferences with the Municipal Commissioner, Health Officer, and Conservancy Superintendent.

The Executive pointed out the following difficulties :—

(1) That the Corporation has prescribed clearance of certain areas twice or thrice a day,

(2) That moveable carts are substituted for standing dust bins,which lead to surplus trips of carts not fully loaded.

(3) That although the tonnage capacity of motors is nominally 4 tons, the maximum refuse which they can carry is 3½ tons or so, and

(4) That although the number of refuse motors is 20, only 15 are working on an *average*. No reduction in the number of motors was therefore possible.

The Conservancy Assistant was then requested to work out his own proposals for retrenchment in bullock traction. He produced at the next meeting a memorandum of possible cuts, which, coupled with the cuts in the strength of drivers set out in Appendix XIII, made up a saving of Rs. 92,504, as against the suggested retrenchment of Rs. 1,35,198.

APPENDIX XV

Subject :—**Retrenchments in the Markets and Slaughter Houses Department.**

This Department is a revenue producing undertaking, and it appears that under the present Markets Superintendent, (Mr. C. M. Flanders) the revenue has materially increased from an average per year of Rs. 10,14,671 of Rs. 11,55,000. The subjoined table shows comparative figures of income and expenditure. In 1913-14 the expenditure was 32 p. c. of revenue; in 1920-21 it was 50 p. c. of revenue; the average expenditure of the succeeding three years was 43 of the average revenue; while in the current year the average is 44 p. c. of income. In 1913-14 the meat traction was by bullock carts only and cost Rs. 40,863; since that year it has been conveyed by motor traction which now costs Rs. 1,43,422. In addition the Corporation has introduced a new service in the form of a Refrigerator which involves an expenditure of Rs. 27,302. If we eliminate these special features from the current year's expenditure, the normal expenditure which can be compared with pre-war times would be as under :—

			Rs.	
Budget Grant for 1924-25			5,10,852.	
Deduct				
(*i*)	Refrigerator	27,302		
(*ii*)	Difference between motor traction and bullock traction (1,43,422—40,863) =	1,02,559		
			1,29,861	
			3,80,991	Net.

This expenditure bears a ratio of 33.85 to revenue as against 32.42 of 1913-14.

Comparative Table referred to above.

1913-14.			1920-21.			Average of 3 years. 1921-22—1923-24.			1924-25.		
Revenue.	Expenditure.	Ratio of Expenditure to Revenue.	Revenue.	Expenditure.	Ratio of Expenditure to Revenue.	Revenue.	Expenditure.	Ratio of Expenditure to Revenue.	Revenue.	Expenditure.	Ratio of Expenditure to Revenue.
5,98,240	1,93,935	32·42	8,43,097	4,25,224	50·43	10,14,671	4,40,693	43·43	11,55,000	5,10,852	44·05

2. I discussed this growth of expenditure with the Markets Superintendent and he has submitted proposals for reduction of the staff to the minimum requirements. In the 1925-26 Budget one post of Head Clerk is added, and I see no justification for this addition. The detailed proposals for the reduction of the unnecessary staff have been worked out on the *maximum* basis and give a net saving of Rs. 17,064, as under :—

(*a*) Central Office.	.. .. ..	5,160
(*b*) Municipal Markets	.. .. ..	6,228
(*c*) Slaughter-Houses	.. .. ..	2,676
(*d*) Refrigerator ..	.. .. ..	3,000
	Total Rs. ..	17,064

Meat Traction by Motors.

3. The most important sub-head under "(*c*) Slaughter-Houses," which requires retrenchment is "(*f*) Meat Carriage," Rs. 1,43,422 (1924-25) and Rs. 1,50,906 (1925-26). In 1913-14 meat used to be conveyed by bullock traction at a cost of Rs. 40,863. Gradually, "Motor Traction" was substituted for "Bullock Traction." The latter kind of service lingered on up to 1923-24. but in the current year has ceased altogether. The average of the last three years of the combined service of motor traction and bullock traction is Rs. 1,35,542 ; while in 1924-25 the expenditure

on Motor Traction has gone up to Rs. 1,43,422. The fleet of motor lorries consists of 9 lorries—2 Albions and 7 Leylands. There is also one Leyland exclusively used for offal removal, though once or twice in case of breakdowns it has been used for meat conveyance after cleaning. I have had an interview with the Mechanical Engineer and the Market Superintendent, and it has been settled that the department can do its work properly by maintaining 7 lorries only, making three trips each per day. It is gathered that the average quantity of meat to be conveyed per day is 46 tons. Now if 4 Leyland 4 ton lorries and 3 Albion 3 ton lorries, are employed, with a provision for three trips per day and one lorry is kept in reserve to meet an emergency due to breakdown, there will be no difficulty in conveying every day, meat not exceeding 46 tons in all. The Markets Superintendent states that although the carrying capacity of a Leyland is 4 tons and of an Albion, 3 tons, the real quantity which they can convey is 3-5ths and $\frac{3}{4}$ths of their apparent tonnage capacity respectively, owing to the bulky nature of the loads. Even this reduced total tonnage capacity of 16 tons with three trips will cope with conveying 48 tons. The Mechanical Engineer agreed that he would run seven motor lorries at a gross cost of Rs. 16,000 per lorry per year making three trips per day, with an addition of Rs. 27,000 as depreciation. The aggregate cost would, therefore, be

16,000×7=1,02,000	Running cost
27,358	Depreciation
Total Rs. 1,29,358	

4. The reduction in the Establishment Charges on the maximum scale should be of Rs. 5,760, which makes provision for the working of 8 lorries, one of which will be kept as reserve and seven will make three trips each per day. The offal Lorry is not touched, as its expenditure falls under sub-head "Disposal of Offal" and not under "(*f*) Meat Carriage." There is no necessity for adding one new lorry for meat conveyance, and the extra staff provided, therefore, in the draft budget for 1925-26, should be deleted. A gross cut for Rs. 15,000 in the current year's budget (Rs. 1,43,422) or of Rs. 21,984 in the ensuing draft budget (Rs. 1,50,406) should be the goal.

5. The retrenchments proposed may be summarized as under :—

			Rs.
(*a*)	Markets Establishment (para. 2)		17,064
(*b*)	Meat Carriage-Running Expenses (para. 3.)	16,224	
(*c*)	Meat Carriage-Establishment (para. 4)	5,760	
			21,984
	Total Rs. ..		39,048

21—11—1924.

N. D. MEHTA
Retrenchment Officer.

APPENDIX XVI.

Subject :—**Retrenchments in the Fire Brigade Department.**

This Department has a special revenue for its maintenance. Under Section 140(c) of the City of Bombay Municipal Act, 1888, the Corporation can levy a rate varying from $\frac{1}{8}$th to $\frac{3}{4}$th per cent of the rateable value of properties. In 1913-14 the rate was $\frac{1}{2}$ per cent; during 1914-15 to 1919-20 the rate was 3-8th%; and since 1920-21 up to now the rate levied is $\frac{1}{2}$ per cent. In addition to this revenue from the Fire Brigade rate, the Department obtains miscellaneous receipts from the hire of accident ambulances of about Rs. 7,000.

2. The subjoined table gives the revenue and expenditure for 1913-14, 1920-21 and 1924-25 :—

Year.	Revenue	Expenditure including new works.	Surplus.	Remarks.
1913–14	2,44,283	1,66,103	78,180	Miscellaneous revenue is excluded from consideration.
1920–21	4,75,603	3,20,709	1,54,894	
1924–25	5,68,000	4,47,025	1,20,975	

If debt charges and new works are eliminated, the expenditure figures for 1913-14, 1920-21 and 1924-25 stand as under :—

Year.	Normal Administrative charges.	Strength of establishment.
1913-14 ..	1,34,349	274
1920-21	2,80,974	263
1924-25	3,92,398	321

As the Department is of the nature of an insurance, and as the City is growing on all sides, there is no possibility of reducing the Administrative Charges without giving a rebate in the Fire Brigade rate. The staff is quite within proportion of the growth of normal expenditure.

3. The Department has a programme of Capital Works amounting to Rs. 17,50,000 and consequently any surplus of revenue from the Fire Brigade rate will be absorbed in meeting the recurring Loan Charges. I, therefore, do not think it advisable to apply the retrenchment Axe to this Department which is working on a fair economical basis.

4. But there is an allowance of Rs. 200 per mensem given to the Medical Superintendent for the purpose of actually visiting at their residences any members of the Fire Brigade who may be ill. It appears that during 1923-24, only 24 such visits were made, which meant that the Doctor's fee amounted to Rs. 100 per visit. The treatment at the Arthur Road Hospital of Fire Brigade patients, either as indoor or outdoor patients, is free. There is therefore no reason for the continuance of the allowance of Rs. 200 per mensem; I think it may safely be reduced to Rs. 50 per mensem, which will be a fair remuneration for the extra trouble and travelling expenses Dr. Patel may have to incur. The adoption of this proposal will give a saving of Rs. 1,800 per annum.

N. D. MEHTA
Retrenchment Officer.

Dated 7th November 1924.

* This proposal was not accepted, the Commissioner stating that Dr. Patel had to medically examine candidates for admission to the Fire Brigade, and also men unfit for further service.

APPENDIX XVII

Subject :—**Retrenchments in the Victoria and Albert Museum.**

This small Municipal institution falling under Budget Head "IV Education Secondary" is of an insignificant nature from a fiscal point of view, although its educative value is of an high order. The expenditure on the Victoria and Albert Museum is Rs. 24,655. There is no important fluctuation in the figures of expenditure. The immediate head of the Institution is a Curator on Rs. 200 per month ; and the general control vests in the Deputy Municipal Commissioner. The establishment charges amount to Rs. 14,952 only. The opinion of the head of the Institution that no retrenchment in fixed charges is possible may be accepted.

N. D. MEHTA
Retrenchment Officer.

Dated 7th November, 1924.

PART IV

TABLES

TABLE I (a)

REVENUE EXPENDITURE FOR 12 YEARS ENDING 1924-25.

ABSTRACT.

(The figures are in Thousand Rupees).

	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25
Administrative Depts.	2,98	2,89	3,12	3,24	3,26	3,69	4,56	4,20	5,13	5,61	5,76	5,81
Revenue Departments.	3,13	3,27	3,36	3,68	3,63	3,59	3,60	4,46	5,24	5,96	6,32	6,47
Engineering Depts. ..	29,80	30,38	30,51	32,19	33,06	40,54	44,16	50,77	60,62	70,91	59,22	63,39
Public Health Depts..	22,40	22,51	23,25	24,37	24,41	28,10	32,06	35,38	47,45	48,60	50,93	55,63
Education	4,70	4,85	5,27	5,63	7,14	9,10	12,44	16,71	19,71	22,07	24,88	25,25
Special Departments..	4,25	4,41	4,43	4,81	5,23	6,95	8,70	8,36	9,22	10,44	10,53	11,24
Fixed and Special Charges	15,12	15,46	15,80	16,73	17,16	18,12	21,40	21,85	22,04	24,13	26,63	29,69
Debt Charges ..	34,65	38,00	39,70	44,46	42,22	44,65	43,49	46,45	49,66	65,92	1,01,27	1,10,23
Miscellaneous ..	3,45	3,11	2,60	7,03	6,50	15,53	12,68	13,84	5,58	7,97	3,96	3,21
Total ..	1,20,48	1,24,88	1,28,04	1,42,14	1,42,61	1,70,27	1,83,09	2,02,02	2,24,65	2,61,61	2,89,50	3,10,92

(*See Chapter I, para* 3.)

TABLE I (b)

REVENUE EXPENDITURE FOR 12 YEARS ENDING 1924-25.

ADMINISTRATIVE DEPARTMENTS.

(The figures are in Thousand Rupees).

	1913-14	1914-15	1915-16	1916-17	1917-18	198-19	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25
Corporation andStanding Committee Secretarial.	80	80	84	86	89	88	119	102	114	122	145	133
Municipal Commissioner's Personal and General Office	93	82	100	93	89	114	159	104	149	170	142	146
Accounts and Audit ..	90	90	90	105	104	120	132	152	174	189	203	215
General Stores	35	37	38	40	44	47	46	62	76	80	86	87
Total..	298	289	312	324	326	369	456	420	513	561	576	581

TABLE I (c)

REVENUE EXPENDITURE FOR 12 YEARS ENDING 1924 25

REVENUE DEPARTMENTS.

(The figures are in Thousand Rupees).

	1913–14	1914–15	1915–16	1916–17	1917–18	1918–19	1919–20	1920–21	1921–22	1922–23	1923–24	1924–25
Assessment and Collection	215	222	219	242	244	257	251	312	368	421	449	459
Licensing	23	29	28	29	28	29	36	39	46	53	54	56
Town Duty Refund ..	75	76	89	97	91	73	73	95	110	122	129	132
Total ..	313	327	336	368	363	359	360	446	524	596	632	647

TABLE I (d.)

REVENUE EXPENDITURE FOR 12 YEARS ENDING 1924-25

Engineering Departments.

(The figures are in Thousand Rupees.)

	1913–14	1914–15	1915–16	1916–17	1917–18	1918–19	1919–20	1920–21	1921–22	1922–23	1923–24	1924–25
1. Executive Engineer :—	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(a) General Branch ..	76*	84*	80*	83*	84*	86*	100*	88	63	67	68	79
(b) Building Inspection	118	121	124	175	143	158	167	140	172	220	227	239
(c) Kurla Deonar Rly.	86	87	89	93	102	89	135	170	170	155	162	189
(d) Upkeep of Municipal buildings	27	27	27	26	25	30	30	27	81	70	76	75
	307	319	320	377	354	363	432	425	486	512	533	582
New Works ..	75	76	100	64	62	78	72	119	59	64	79	57
	382	395	420	441	416	441	504	544	515	576	612	639

TABLE I (d)—*continued.*

	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25
2. Roads Division :—												
(a) Roads, Overbridges and footpaths	7,53	8,01	8,62	8,99	8,63	12,00	11,94	18,32	23,12	31,69	21,03	20,26
(b) Road watering ..	1,23	1,30	81	96	1,26	1,48	1,76	1,75	2,13	1,78	1,62	1,66
(c) Street Improvements	1,36	1,24	1,33	1,54	1,82	1,69	1,80	1,50	2,44	1,48	74	70
(d) Port Trust	40	43	43	43	49	2,84	1,74	87	87	1,73	1,30	1,30
(e) New Works	46	50	34	11	24	36	37	5	2	..	9	..
	10,98	11,48	11,53	12,03	12,44	18,37	17,61	22,49	28,58	36,68	24,78	23,92
3. Public Lighting ..	4,24	4,45	4,30	4,80	5,00	4,97	4,38	4,31	5,71	7,53	8,10	9,17
4. Drainage Division :—												
(a) Maintenance ..	2,65	2,40	2,76	2,79	2,68	3 06	3,63	4,27	5,00	5,08	5,69	6,09
(b) New Works ..	76	66	68	64	73	1,04	1,44	1,22	1,03	2,19	85	1,57
	3,41	3 06	3,44	3,43	3,41	4,10	5,07	5,49	6,03	7,27	6,54	7,66

TABLE I (d)—*continued.*

	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25
5. Mechanical Division :—												
(a) Pumping and Compressor Stations. ..	317	307	321	354	339	441	399	489	674	689	679	762
(b) Supervision of Factories	..	..	..	..	..	..	4	4	7	8	9	9
	317	307	321	354	339	441	403	493	681	697	688	771
6. Water Works :—												
(a) Maintenance ..	357	418	353	359	431	394	772	802	791	666	676	842
(b) New Works ..	61	19	30	39	36	34	31	9	14	3	4	12
	418	437	383	398	467	428	803	811	805	669	680	854
Grand Total..	29,80	30,38	30,51	32,19	33,07	40,54	44,16	50,77	60,63	70,90	59,22	63,39

*Includes expenditure of Architectural Branch.

(*See Chapter X para* 85.)

TABLE

REVENUE EXPENDITURE FOR 12 YEARS

HEALTH

(The figures are in

	1913-14	1914-15	1915-16	1916-17	1917-18
Health Department.					
1 Public Health.					
(a) General Supervision ..	..	..	..	..	..
(b) Registration of Births and Deaths	320	329	324	334	349
(c) Cemeteries	14	12	11	11	12
(d) Laboratory	16	14	12	16	16
(e) Dhobiwada	14	18	18	18	20
(f) Supervision of Milk Supply	6	6	7	12	11
(g) Dispensaries ..	14	14	15	17	19
(h) Dharamsala ..	1	1	1	..	..
(i) Infectious Diseases ..	..	..	..	16	14
(j) Vaccination ..	32	30	32	32	33
(k) Malaria	57	48	45	44	40
(l) Plague	..	..	..	..	..
(m) Destruction of Dogs.	..	..	1	1	1
(n) Maternity Homes ..	..	1	9	10	11
(o) Medical and Nursing Assistance ..	..	1	1	1	1
Anti Tuberculosis League					
Total ..	474	474	476	512	533
Hospitals					
Arthur Road Hospital ..	54	61	58	63	48
Maratha Hospital ..	23	23	21	29	29
Total ..	77	84	79	92	77
Conservancy Branch.					
Street Cleansing & Conservancy	1,171	1,168	1,230	1,307	1,306
Halalkhore Service ..	518	525	540	526	525
Total	1,689	1,693	1,770	1,833	1,831
Grand Total	2,240	2,251	2,325	2,437	2,441

(*See Appendices XI,*

I (e)

ENDING 1924-25.

DEPARTMENT.

Thousand Rupees.)

1918–19	1919–20	1920–21	1921–22	1922–23	1923–24	1924–25
..	..	..	..	..	..	..
356	421	431	569	589	603	636
15	24	16	23	19	24	30
18	14	12	23	18	18	24
16	18	20	18	20	20	24
5	5	5	7	18	19	21
20	20	26	55	53	56	59
..	1	2	1	1	1	2
124	48	30	51	21	43	39
35	37	44	56	55	49	51
32	18	22	38	47	70	82
..	..	..	..	..	..	..
2	2	2	3	4	5	9
22	..	46	60	68	56	94
1		13	26	36	36	41
..	..		..		42	68
646	608	669	930	949	1,042	1,180
71	82	86	107	118	153	163
20	39	26	44	48	51	50
91	121	112	151	166	204	213
1,513	1,891	2,083	2,849	2,895	2,982	3,252
560	586	674	815	850	865	918
2,073	2,477	2,757	3,664	3,745	3,847	4,170
2,810	3,206	3,538	4,745	4,860	5093	5,563

XII, XIII, and XVI.)

TABLE I. (f)

REVENUE EXPENDITURE FOR 12 YEARS ENDING 1924-25.

EDUCATION.

(The figures are in Thousand Rupees.)

	1931-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25
Schools Committee ..	417	432	474	510	658	854	1,188	1,615	1,914	2,149	2,432	2,468
Aided Institutions ..	5	5	5	5	8	8	8	8	9	10	8	9
Secondary Education (Including V. & A. Museum).	48	48	48	48	48	48	48	48	48	48	48	48
Total	470	485	527	563	714	910	1,244	1,671	1,971	2,207	2,488	2,525

TABLE I (g)

REVENUE EXPENDITURE FOR 12 YEARS ENDING 1924-25.

SPECIAL DEPARTMENTS.

(The figures are in Thousand Rupees).

	1913-14	1914-15	1915-16	1916-17	1917-18	1918-19	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25
Fire Brigade ..	134	146	153	156	185	223	283	281	337	353	372	392
Street Ambulance ..	..	..	..	..	..	..	..	1	4	9	9	15
Markets & Slaughter Houses ..	194	192	192	227	244	370	473	425	404	521	493	511
Gardens ..	81	85	82	82	77	85	97	112	153	138	158	181
Museum ..	16	18	16	16	17	17	17	17	24	23	21	25
Total ..	425	441	443	481	523	695	870	836	922	1,044	1,053	1,124

(See Appendices XV, XVI and XVII.)

TABLE I (h)

REVENUE EXPENDITURE FOR 12 YEARS ENDING 1924-25.

FIXED AND SPECIAL CHARGES.

(The figures are in Thousand Rupees)

	1913–14	1914–15	1915–16	1916–17	1917–18	1918–19	1919–20	1920–21	1921–22	1922–23	1923–24	1924–25
Hospital Contributions.	452	479	448	446	447	489	461	473	487	505	495	503
Contribution to C. I. Trust ..	932	977	1,017	1,101	1,098	1,153	1,520	1,571	1,577	17,85	1,907	2,228
Contribution to Pro. Fund ..	..	..	..	..	..	..	..	..	..	..	150	100
Town Duty Collection	128	90	115	126	171	170	159	141	140	123	111	138
	1,512	1,546	1,580	1,673	1,716	1,812	2,140	2,185	2,204	2,413	2,663	2,969

TABLE I (1)

REVENUE EXPENDITURE FOR 12 YEARS ENDING 1924-25.

DEBT CHARGES

(The figures are in Thousand Rupees)

	1913–14	1914–15	1915–16	1916–17	1917–18	1918–19	1919–20	1920–21	1921–22	1922–23	1923–24	1924–25
Fire Brigade	31	38	35	35	36	35	44	36	42	40	45	53
General	3,434	3,762	3,935	4,411	4,186	4,430	4,305	4,609	4,924	6,552	10,082	10,970
	3,465	3,800	3,970	4,446	4,222	4,465	4,349	4,645	4,966	6,592	10,127	11,023

(*See Chapter XI*)

TABLE I (j)

REVENUE EXPENDITURE FOR 12 YEARS ENDING 1924-25.

MISCELLANEOUS.

(The figures are in Thousand Rupees.)

	1913–14	1914–15	1915–16	1916–17	1917–18	1918–19	1919–20	1920–21	1921–22	1922–23	1923–24	1924–25
Pensions	108	111	115	147	176	165	189	214	200	216	212	220
DiscretionalContingencies	3	5	3	5	5	6	6	4	5	2	3	7
Auditors' Allowance ..	10	10	10	10	10	10	10	10	10	24	15	15
Fire Accident Fund ..	10	10	10	10	10	10	10	10	15	15	15	15
Law Charges	22	34	19	21	50	32	26	20	18	25	36	24
War allowance	..	..	..	..	72	427	813	..	..	..	..	..
Local Allowance ..	73	73	71	37	26	17	10	..	..	..	..	..
ExtraordinaryAllowances	..	..	..	..	..	..	..	856	..	..	..	..
Grain Compensation ..	..	..	..	..	184	189	189	..	..	..	..	..
Census	..	..	..	..	..	..	..	26	..	..	..	..
Investments	..	..	..	418	41	642	10	159	253	319	70	..
Miscellaneous	119	68	32	55	76	55	5	85	57	196	45	40
	345	311	260	703	650	1,553	1,268	1,384	558	797	396	321

TABLE II.

STATEMENT SHOWING TOTAL CAPITAL EXPENDITURE YEAR BY YEAR FOR 13 YEARS ENDING 1925-26.

(In Lakhs of Rupees.)

	1913–14	1914–15	1915–16	1916–17	1917–18	1918–19	1919–20	1920–21	1921–22	1922–23	1923–24	1924–25 Budget.	1925–26 Budget.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Revenue Producing Works													
Water Works (Ordinary)	2.28	Cr. .67	.11	.92	Cr. .25	.25	2.15	5.02	9.49	11.42	9.87	19.07	14.62
,, ,, (T. C. W.)	13.82	50.54	8.88	Cr. .01	..	.17	..	1.00	21.40	54.65	199.21	196.37	51.62
Worn out Water Mains Renewal Fund	.20	.08	.06	..	..	..	..	..	..	..	..	5.51	..
Total ..	16.30	49.95	9.05	.91	Cr. .25	.42	2.15	6.02	30.89	66.07	209.08	220.05	66.24
Markets and Slaughter houses..	..	..	..	..	.01	.01	Cr. 22	.84	2.37	17.53	9.66	13.07	6.80
II. General Services.													
General Supervision and Collection of Revenue..	1.31	1.26	1.13	2.65	.32	.17	Cr.1.30	.12	.33	3.41	Cr. .21	2.34	12.25
Education	.41	.34	.39	.60	.37	.03	.02	.69	.93	5.03	2.88	3.30	..
Public Health	.14	.31	..	.10	.10	.55	.20	.46	.66	.24	2.16	2.39	1.35
Hospital and Medical Relief ..	..	..	..	..	..	3.16	2.71	3.09	7.90	6.06	3.64	24.28	19.79
Street Cleansing and Sanitation	1.31	.32	.26	.68	.12	1.01	.73	2.73	3.51	1.65	2.95	3.66	4.67
Roads and Overbridges	8.18	5.95	7.49	1.85	6.04	9.41	2.89	9.07	12.02	22.72	24.62	57.11	30.15

Drainage and Sewerage including Halalkore Branch	14.95	15.37	9.12	6.32	5.80	7.73	6.91	15.38	6.31	7.28	13.87	29.47	24.16
Fire Brigade	..	..	.96	..	..	..	..	..	.01	.38	.59	2.60	3.16
Building Regulations and other Measures for securing public safety													
Gardens and Open Spaces ..	1.47	..	.23	.04	..	..	.52	3.60	8.49	6.46	5.77	7.16	5.46
Total	27.77	23.55	19.58	12.24	12.75	22.06	12.68	35.14	40.16	53.23	56.27	132.31	100.99
III. Development Works.													
Golanji Hill Road	..	..	..	..	..	..	..	..	.09	8.54	.90	.75	..
Hornby Road to Ballard Pier Road	..	..	..	..	..	..	..	..	..	29.89	31.12	58.00	25.90
Dalal Street	..	..	..	..	..	..	..	1.99	Cr.3.55	..	.48	2.60	..
Mahim Park	..	..	..	..	..	..	..	..	..	21.41	8.02	19.70	8.70
Mahaluxmi Overbridge	..	..	..	..	..	..	..	..	..	..	..	11.51	..
Plant and Machinery	..	..	..	..	..	..	..	..	..	..	.08	1.17	..
Mahim Development Scheme	..	..	..	..	..	..	..	Cr. .47	5.35	31.84	4.77	15.68	9.99
Total	..	..	..	..	..	..	..	1.52	1.89	91.68	45.37	109.41	44.59
									Add— Interest on Capital			17.50	14.50

(*See Chapter X, paras, 85 and 86.*)

TABLE III.

DISTRIBUTION OF THE PERMANENT SUPERIOR ENGINEERING STAFF.

PRESENT DISTRIBUTION.

Designations.	REVENUE.						CAPITAL.		
	Executive Engineer.	Roads.	Drainage.	Water.	Mechanical.	Total.	Water.	Development	Total.
Engineer, Special ..	..	..	..	..	..	..	..	1	1
„ Executive	1	..	..	..	..	1	..	..	..
„ Hydraulic	..	..	..	1	..	1	..	..	..
„ Deputy Executive ..	..	..	1		1	2	..	1	1
Architect ..	..	..	..	..	..	..	..	1	1
Engineers, Senior Asst.	5	2	1	1	..	9	..	4	4
„ Assistant	1	..	1	3	..	5	1	..	1
„ Sub.	6	8	2	2	1	19	..	10	10
	13	10	5	7	2	37	1	17	18

SUGGESTED RE-DISTRIBUTION.

Designations.	REVENUE.						CAPITAL.		
	City Engineer	E. E. North.	E. E. South.	Drainage.	Water.	Mechanical.	Total.	Water.	City Planning	Total.
City Engineer	1	..	..	..	..	..	1	..	..	..
Special „	..	..	..	..	..	..	..	..	1	1
Deputy City Engineers	..	1	1	1	1	1	5	..	1	1
Architect	..	..	..	..	..	..	..	..	1	1
Engineers Senior Asstt.	1	3	3	1	1	..	9	..	4	4
„ Assistant	..	..	..	1	3	..	4	1	..	1
„ Sub.	1	6	6	2	2	1	18	..	10	10
	3	10	10	5	7	2	37	1	17	18

(*See Chapter X, para* 87.)

TABLE

STATEMENT SHOWING DISTRIBUTION OF EXPENDI-
FROM 1924-25 TO 1930-31, AS PROPOSED BY THE

(Figures are in

Main Heads of Capital Expenditure	Total of Estimates	Expenditure up to 1-4-24	Proposed 1924-25	Proposed 1925-26
1	2	3	4	5
I—*Self-Supporting Works—Special Main Heads.*	Rs.	Rs.	Rs.	Rs.
1. Water works, Ordinary	7,730	2,902	1,000	1,000
	*6,812	..	..	..
2. „ „ Tansa Completion Works ..	56,916	27,639	14,583	12,156
3. Markets and Slaughter-Houses ..	4,245	2,270	1,010	300
	*7,891	..	..	..
Totals of Sanctioned Words ..	68,891	32,811	16,593	13,456
Totals of Unsanctioned	*14,703	..	..	..
Total	83,594	32,811	16,593	13,456
II.—General Services.				
1. General Supervision and Collection of Revenue, etc	1,437	330	124	..
	*6,381	..	..	..
2. Education	1,231	84	200	200
	*824	..	25	300
3. Public Health	1,551	193	100	100
	*80	..	..	..
4. Hospitals and Medical Relief ..	7,765	3,460	2,114	2,189
	*479	..	..	..
5. Street Cleansing and sanitation ..	1,584	580	200	100
	*5,348	..	..	..
6. Roads and Overbridges	15,598	6,771	3,308	1,520
	*21,894	..	216	1,655
7. Drainage and Sewerage including Halalkhore Branch	6,374	914	1,208	1,233
	*42,935	..	..	2,300
8. Fire Brigade	484	59	143	44
	*1,480	..	..	..
9. Gardens and Open Parks	4,015	2,370	600	..
	*13	..	..	..
10. Miscellaneous	..	..	794	94
Totals of Sanctioned Works ..	40,039	14,761	8,791	5,480
Totals Unsanctioned Works ..	*79,434	..	*241	4,255
Total	1,19,473	14,761	9,032	9,735
III.—Development Works				
1. Golanji Hill Road	1,028	922	100	..
2. Hornby Road to Ballard Pier Road	19,644	6,101	5,800	2,595
3. Dalal Street	1,252	48	153	..
4. Mahim Park	6,385	2,960	1,370	800
5. Mahaluxmi Overbridge	1,151	..	1,338	..
6. Mahim Development Schemes ..	7,542	4,731	1,527	1,426
7. For discharge of loan (provisional) ..	..	..	..	3,100
Totals of Sanctioned Works	37,002	14,762	10,288	7,921
Grand Totals of Sanctioned Works	1,45,932	62,334	35,672	26,857
Grand Totals of Unsanctioned Works	*94,137	..	241	4,255
Total	2,40,069	62,334	35,913	31,112

(See Chapter XI,

IV

TURE, ETC., UNDER LOAN WORKS FOR 7 YEARS SPECIAL ENGINEER, DEVELOPMENT WORKS.

Thousand Rupees.)

Expenditure					Total of columns 5 to 10	Remarks.
1926–27	1927–28	1928–29	1929–30	1930–31		
	7	8	9	10	11	
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1,000	1,000	515	..	..	3,515	
..	..	485	1,000	1,000	2,485	
..	..	..	..	..	12,156	
325	306	..	..	..	931	
..	19	325	325	325	994	
1,325	1,306	515	..	..	16,602	
..	19	810	1,325	1,325	3,479	
1,325	1,325	1,325	1,325	1,325	20,081	
..	..	..	..	..	..	
..	..	..	..	..	..	
250	250	133	..	..	833	
..	..	117	250	250	917	
50	50	50	50	50	350	
..	..	..	..	..	..	
..	..	..	..	..	2,189	
25	25	25	25	25	125	
50	50	50	50	50	350	
50	50	50	50	50	250	
1,078	1,000	1,000	519	500	5,617	
660	1,192	1,238	1,398	985	7,128	
800	800	819	331	200	4,183	
6,700	7,525	7,250	5,424	750	29,949	
..	..	..	..	..	44	Note :—Figures marked with asterisks indicate the Estimated cost of new works proposed but not yet sanctioned.
..	..	..	..	..	..	
..	..	..	..	..	..	
..	..	..	..	..	..	
346	308	273	271	260	1,552	
2,574	2,458	2,325	1,221	1,060	15,118	
7,435	8,792	8,680	7,147	2,060	38,369	
10,009	11,250	11,005	8,368	3,120	53,487	
..	75	75	74	..	224	
2,595	2,019	..	..	..	7,209	
..	..	..	..	..	..	
772	100	100	71	..	1,843	
..	..	..	..	..	..	
1,428	736	514	19	..	4,123	
..	..	..	..	..	3,100	
4,795	2,930	689	164	..	16,499	
8,694	6,694	3,529	1,385	1,060	48,219	
7,435	8,811	9,490	8,472	3,385	41,848	
16,129	15,505	13,019	9,857	4,445	90,067	

para. 113.)

TABLE V (A).

FUTURE CAPITAL EXPENDITURE ON A LIBERAL SCALE.

Statement showing Loan Charges (Col. 6) corresponding to yearly additions to Capital Expenditure and Debt at the rate shown in Column 2.

(The figures are in Crores of Rupees.)

Year	Additions to Debt during year.	Debt at beginning of year.	Credits. Repayment of Capital.	Debt at end of year.	Corresponding Loan Charges.	Rateable Value.	Borrowing powers double the Rateable Value.	Estimated Income.	Estimated Expenditure.
1	2	3	4	5	6	7	8	9	10
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1924—25..	4.16	14.43	.02	18.57	1.11	11.38	22.76	3.13	3.11
1925—26..	3.10	18.57	.37	21.30	1.35	11.38	22.76	3.26	3.34
1926—27..	1.60	21.30	.06	22.84	1.45	11.60	23.20	3.29	3.44
1927—28..	1.55	22.84	.21	24.18	1.57	11.90	23.80	3.36	3.56
1928—29..	1.30	24.18	.10	25.38	1.67	12.20	24.40	3.42	3.66
1929—30..	1.00	25.38	.02	26.36	1.74	12.50	25.00	3.48	3.73
1930—31..	.45	26.36	.35	26.46	1.77	12.80	25.60	3.54	3.76
Total for 6 years only ..	9.00	..	..	..	..	..	..	..	..

Notes—1. Increase in rateable value is estimated at Rs. 30 lakhs per annum.

2. It is assumed that recoupments from Development Schemes would not be less than Rs. 20 lakhs per annum from 1926-27. No liabilities on account of Development schemes are included in this statement. If recoupments come in faster, they will go towards reducing capital but will not give immediate relief to the taxpayer.

3. The last two columns show that from 1926-27, there would be budget deficits which may have to be met by increased taxation.

4. The figures in the table include full interest and Sinking Fund Charges on yearly additions to debt.

(*See Chapter XI, para* 114.)

TABLE V (B.)

FUTURE CAPITAL EXPENDITURE ON A MODERATE SCALE.

Statement showing Loan Charges (column 6) corresponding to yearly additions to Capital Expenditure and Debt at the rate shown in column 2.

(The figures are in Crores of Rupees.)

Year.	Additions to debt during year.	Debt at beginning of year.	Credits Repayment of Capital.	Debt at end of year.	Corresponding Loan Charges.	Rateable value.	Borrowing Powers double the rateable value.	Estimated income.	Estimated expenditure.
1	2	3	4	5	6	7	8	9	10
	Rs	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1924-25	4.16	14.43	.02	18.57	1.11	11.38	.22	3.13	3.11
1925-26	1.50	18.57	.37	19.70	1.24	11.38	22.76	3.26	3.23
1926-27	1.00	19.70	.06	20.64	1.30	11.60	23.20	3.29	3.29
1927-28	1.00	20.64	.21	21.43	1.37	11.90	23.80	3.36	3.36
1928-29	1.00	21.43	.10	22.33	1.43	12.20	24.40	3.42	3.42
1929-30	.75	22.33	.02	23.06	1.49	12.50	25.00	3.48	3.48
1930.31	.75	23.06	.35	23.46	1.54	12.80	25.60	3.54	3.53
Total for 6 years only	6.00								

Notes—1. Increase in rateable value is estimated at Rs. 30 lakhs per annum.

2. It is assumed that recoupments from Development Schemes would not be less than Rs. 20 lakhs per annum from 1926-27. No liabilities on account of Development Schemes are included in this statement.

3. The increase in Loan Charges in the six years will be met by a corresponding increase in revenue due to increase in rateable value. There will be no need for increasing the rate of the general tax.

4. The rateable value ought to increase rapidly after about 5 years as a result of the Development Schemes nearing completion.

5. The figures in the table include full interest and Sinking Fund Charges on yearly additions to debt.

(*See Chapter XI, para 114.*)

TABLE V (C).

FUTURE CAPITAL EXPENDITURE ON A RESTRICTED SCALE.

Statement showing Loan Charges (column 6) corresponding to yearly additions to Capital Expenditure and Debt at the rate shown in column 2.

(The figures are in Crores of Rupees)

Year.	Additions to debt during year.	Debt at beginning of year.	Credits Repayment of Capital.	Debt at end of year.	Corresponding Loan Charges.	Rateable value.	Borrowing powers double the rateable value.	Estimated income.	Estimated expenditure.
1	2	3	4	5	6	7	8	9	10
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1924-25	4.16	14.43	.02	18.57	1.11	11.38	22.76	3.13	3.11
1925-26	1.50	18.57	.37	19.70	1.24	11.38	22.76	3.26	3.23
1926-27	.50	19.70	.06	20.14	1.27	11.60	23.20	3.29	3.26
1927-28	.50	20.14	.21	20.43	1.30	11.90	23.80	3.36	3.29
1928-29	.50	20.43	.10	20.83	1.33	12.20	24.40	3.42	3.32
1929-30	.50	20.83	.02	21.31	1.36	12.50	25.00	3.48	3.35
1930-31	.50	21.31	.35	21.46	1.39	12.80	25.60	3.54	3.38
Total for 6 years only	4.00								

Notes—1. Increase in rateable value is estimated at Rs. 30 lakhs per annum.

2. It is assumed that recoupments from Development Schemes would not be less than Rs. 20 lakhs per annum from 1926-27, so no liabilities on account of Development Schemes are included in this statement.

3. By restricting Loan Charges in the manner indicated a reduction in tax rate may be possible under this alternative.

4. The figures in the table include full interest and Sinking Fund Charges on yearly additions to debt.

(*See Chapter XI, para* 114.)

TABLE

LOAN CHARGES IN RELATION TO INCOME, DEBT

(*The figures given are*

		Results of the past						
		1913–14	1914–15	1915–16	1916–17	1917–18	1918–19	1919–20
	1	2	3	4	5	6	7	8
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	Income :—							
	(a) General Tax at 9½ per cent till 1921-22 and 11 per cent thereafter.	46.41	48.49	52.31	52.16	54.75	72.19	74.65
	(b) Income from other sources	82.35	75.64	86.00	88.33	93.54	101.55	108.52
	Total Income	128.76	124.13	138.31	140.49	148.29	173.74	183.17
2	Loan Charges	34.34	37.62	39.35	44.11	41.86	44.30	43.05
3	Rateable value of property	521.63	538.67	570.84	588.82	612.35	746.88	772.47
4	Limit of borrowing power (Double the rateable value.)	1043.26	1077.34	1141.68	1177.64	1224.70	1493.76	1544.94
5	Outstanding net debt at the close of the year.	511.02	537.65	578.96	561.56	544.18	554.68	576.70
6	Unexhausted borrowing powers at the close of the year.	532.24	539.69	562.72	616.08	680.52	938.88	968.24
7	Net debt per capita ..	Rs. 52	Rs. 55	Rs. 59	Rs. 57	Rs. 56	Rs. 56	Rs. 59
8	Net debt per Rs. 1,000 of rateable value of property.	,, 980	,, 998	,, 1014	,, 954	,, 889	,, 743	,, 747

(*See Chapter*

VI.

POSITION TO BORROWING POWERS, ETC.

in Lakhs of Rupees.)

twelve years.					Forecast of the next six years.					
1920-21	1921-22	1922-23	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31
9	10	11	12	13	14	15	16	17	18	19
Rs.	Rs.	Rs.	.. Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
74.89	84.79	104.91	111.11	128.00	130.37	133.67	136.97	140.27	143.57	146.87
126.54	146.68	162.62	168.11	185.00	196.21	195.33	199.03	201.73	204.43	207.13
201.43	231.47	267.53	279.22	313.00	326.58	329.00	336.00	342.00	348.00	354.00
46.27	49.26	65.53	101.27	111.00	124.00	130.00	137.00	143.00	149.00	154.00
839.22	934.04	1012.69	1138.14	1138.14	1138.14	1160.00	1190.00	1220.00	1250.00	1280.00
1678.44	1868.08	2025.38	2276.28	2276.28	2276.28	2320.00	2380.00	2440.00	2500.00	2560.00
587.79	697.76	876.13	1182.04	1561.09	1676.00	1782.00	1886.00	1973.00	2046.00	2106.00
1060.65	1170.30	1149.25	1094.24	715.19	600.28	538.00	494.00	467.00	454.00	454.00
Rs. 53	Rs. 59	Rs. 73	Rs. 97	Rs. 128	Rs. 137	Rs. 146	Rs. 154	Rs. 161	Rs. 167	Rs. 172
,, 736	,, 747	,, 865	,, 1039	,, 1372	,, 1472	,, 1536	,, 1585	,, 1687	,, 1636	,, 1646

TABLE VII (A.)

DETAILS OF BUDGET ESTIMATES FOR 1925-26 SHOWING RETRENCHMENTS EFFECTED AND FINAL APPROVED GRANTS.

(See Chapter VIII, para 52).

Budget Grant No.	Title of Grant.	Officer responsible for administering Grant.	Commissioner's Tentative Budget for 1925-26	Retrenchments recommended by retrenchment Adviser.	Budget as approved by the Corporation.	Remarks. A=Not yet investigated for retrenchment. B=Retrenchment proposals submitted. C=No retrenchment possible.
	I General Supervision, Collection of Revenue					
I A (a)	Corporation and Standing Committee's Establishment	Municipal Secretary ..	1,53,999	..	1,53,999	A.
(b)	M. C's Personal and General Office ..	Municipal Commissioner.	2,08,626	..	2,19,126	A. Rs. 10,500 added by S. C. to meet the allowances of Dy. M. C.
(c)	Audit and Accounts Establishment	Chief Accountant ..	2,23,721	..	2,23,721	A.
I B (a)	Property and Wheel Tax Est. ..	Assessors and Collector	4,73,113	..	4,73,113	A.
(b)	Town Duty Collection		1,19,200	..	1,19,200	Commission paid to Rlys. and Port Trust
(c)	Town Duty Refund Branch.. ..	T. D. R. Officer ..	1,30,588	..	1,30,588	A.
I C (a)	Upkeep of Municipal Head Office ..	Executive Engineer ..	48,108	..	48,108	B.
(b)	Establishment for upkeep of Municipal Buildings.	do.	37,324	5,442	31,882	C.

I D	General Stores	Store-keeper	86,118	..	86,118	A.
I F	Miscellaneous Charges		3,55,400	..	3,55,400	B
I G	Election Expenses	M. C. ..	..	..	10,000	Added by Standing Committee.
	New Works	Ex. Engr. ..	500	..	500	B.
I H	Debt Charges (general)		61,68,922	..	61,69,927	Separate Report submitted.
	II Water Works					
II	Water Works	Hydraulic Engineer ..	11,25,348	53,464	10,66,934	B. Rs. 4,950 deducted by Standing Committee.
	Debt Charges	C. A.	58,17,853	..	58,17,853	C.
	III Education					
III A	Schools Committee	Secy. Schools Comt. ..	26,02,652	..	26,02,652	A.
III B	Aided Institutions (Primary Education).		16,400	..	16,400	C.
	IV Education Secondary					
IV A	Victoria Albert Museum	Curator V. A. M. ..	24,140	..	24,140	C.
B	Aided Institutions. (Secondary Education)		74,700	..	81,700	C. Rs. 7,000 added by Standing Committee.
	New Works (V. A. Museum) ..	M. E.	3,500	..	3,500	C.

Budget Grant No.	Title of Grant.	Officer responsible for administering Grant.	Commissioner's Tentative Budget for 1925-26.	Retrenchments recommended by retrenchment Adviser.	Budget as approved by the Corporation.	Remarks. A=Not yet investigated for retrenchment. B=Retrenchment proposals submitted. C=No retrenchment possible.
	V Public Health					
V. A.	Public Health—General Supervision	Health Officer ..	6,52,067	55,060	5,97,007	B.
B	Supervision of City Milk Supply ..	do. ..	21,258	..	21,258	C.
V. C.	Epidemics	do. ..	38,638	600	38,038	B.
D.	Vaccination	do. ..	54,473	..	54,473	C.
E.	Malaria	do.	82,346	31,474	82,346	Retrenchment restored by Corporation.
V. F (a)	Cemeteries	do.	32,191	..	32,191	C.
(b)	Laboratory	do. ..	25,264	2,700	22,564	B.
(c)	Dhobiwada	do. ..	24,377	..	24,377	C.
(d)	Dharamshala	do. ..	2,337	..	2,337	C.
(e)	Destruction of Dogs	do. ..	6,704	500	6,204	B.
		..				
	VI. Hospitals and Medical Relief					
VI A (a)	Infectious Diseases Hospitals ..	Medical Supdt. ..	2,10,863	23,442	1,87,421	B.
(b)	Maternity Home	Health Officer ..	91,079	300	90,779	B.
(c)	Dispensaries for out patients ..	do. ..	69,050	1,000	68,050	B.
VI B	Medical and Nursing Assistance to poor patients	do. ..	41,000	18,960	22, 040	B
C	Statutory contribution to Government Medical Institutions ..	..	4,14,500	..	4,14,500	C.

D	Grants in aid to Public Medical Institutions			73,400	..	73,400	C.
E	Anti-Tuberculosis Dispensary ..	Health Officer	..	70,408	500	69,908	B.
F	Venereal Diseases	do.		26,318	500	25,818	B.
G	King Edward Memorial Hospital				..	2,43,230	New Provision.
H.	Gordhundas Sunderdas Medical College			..	..	1,22,200	do.
	VII Street Cleansing and Conservancy including Road Watering						
VII A	Street Cleansing and Conservancy ..	C. S.		32,65,492	3,06,118	29,59,374	B.
B	Transport of Refuse etc. to Deonar..	Ex. Engr.	..	1,90,827	7,200	1,83,627	B.
C	Road Watering	Road Engineer	..	1,41,000	..	1,41,000	A.
	New works for Conservancy Branch	M. E.	..	9,670	..	9,670	C.
	Do.	E. E.	..	2,000	..	2,000	C.
	VIII. Roads & Overbridges						
VIII A	Roads, Overbridges & Footpaths ..	Road Engineer	..	19,14,067	3,23,324	15,90,743	B.
B	Street Improvements	do.	..	70,000	35,000	35,000	B.
C	Cleansing and Repairing Port Trust roads and wharves	do.	..	1,29,919	..	1,29,919	A.
	New Works for Road Department..	Road Engineer	..	2,900	..	2,900	C.
	do.	M. E.	..	7,000	..	7,000	C.
	IX. Public Lighting						
IX	Public Lighting	Road Engineer	..	9,27,080	..	9,27,080	C.
	X. Drainage and Sewerage including the Halalkhore Branch.						
X A	Drainage & Sewerage	Drainage Engineer	..	6,10,299	21,020	5,89,279	B.
B.	Pumping and Compressor Stations and Floodgates	M. E.	..	7,45,065	83,194	6,61,871	B.
C	Halalkhore Branch	C. S.	..	9,08,863	50,494	8,58,369	P.
	New Works Drainage	D. E.	..	1,03,521	4,200	99,321	B.
	do. P. & C. Stns.	M. E.	..	15,000	..	15,000	C.
	do. Hal. Beh.	E. E.	..	11,575	..	11,575	C.

Budget Ward No.	Title of Grant.	Officer responsible for administering Grant	Commissioner's Tentative Budget for 1925-26	Retrenchments recommended by Retrenchment Adviser.	Budget as approved by the Corportion.	A=Not yet investigated for retrenchment. B=Retrenchment proposals submitted C=No retrenchment possible.
	XI. Fire Brigade.					
XI	Fire Brigade	C. O. F. B. ..	3,93,574	..	3,93,574	C.
	Debt charges	C. A. ..	54,824	..	54,824	C.
	XII. Building Regulations and other measures for Securing the Public Safety.					
XII A	Ex. Engr. Central Office	Ex. Engr. ..	78,690	8,850	69,840	B.
B	Inspection and Supervision of Private buildings.	do. ..	2,48,379	54,146	1,94,233	B.
C	Supervision of Factories, Workshops and Work places	M. E. ..	7,715	..	7,715	A.
D	Licensing Estbt.	Supdt. of License ..	57,875	..	57,875	A.
E	Street Ambulance	C. & B. ..	15,000	..	15,000	C.
	XIII. Gardens and Open Spaces.					
XIII	Gardens and Open Spaces	Supdt. of Gardens ..	1,79,028	..	1,79,028	A.
	New works	E. E. ..	20,000	..	20,000	A.
	XIV. Markets & Slaughter Houses.					
XIV	Markets & Slaughter-houses ..	S. M. ..	5,45,167	35,398	5,13,169	B. Rs. 3,500 added by Standing Committee.
XV	Contribution to C. I. Trust ..		22,55,000	..	22,55,000	C.
XVII	Provident Fund		1,50,000	..	1,50,000	C.
XIX	Retrenchment Enquiry		..	..	30,000	New Provision.
			3,26,66,015	11,22,886	3,19,95,983	

TABLE VII (B)

SUMMARY OF RETRENCHMENTS AND BUDGET ESTIMATES UNDER MAIN SERVICE HEADS

(See Chapter VIII Para 52).

Budget Head No.	Title of Grant.	Commissioner's tentative Budget for 1925-26.	Retrenchments recommended by retrenchment Adviser.	Budget as approved by Standing Committee	Budget as approved by Corporation.	Remarks.
I	General Supervision Collection of Revenue etc.	18,36,697	5,442	18,51,755	18,51,755	
I A	Debt General	61,68,922	..	61,68,922	61,68,922	
II	Water Works	69,43,201	53,464	68,84,787	68,84,787	
III	Education—Primary	26,19,052	..	26,19,052	26,19,052	
IV	,, —Secondary	1,02,340	..	1,09,340	1,09,340	
V	Public Health Department	9,39,655	90,334	8,49,321	8,80,795	
VI	Hospitals and Medical Relief	9,96,618	44,702	13,17,346	13,17,346	Rs. 3,65,430 added for K. E. M. Hospital, etc.
VII	Street Cleansing and Conservancy including road watering	36,08,989	3,13,318	32,95,671	32,95,671	
VIII	Roads and overbridges	21,23,886	3,58,324	17,65,562	17,65,562	
IX	Public Lighting	9,27,080	..	9,27,080	9,27,080	
X	Drainage and Sewerage, including the Halalkhore Branch	23,94,323	1,58,908	22,35,415	22,35,415	
XI	Fire Brigade	4,48,398	..	4,48,398	4,48,398	
XII	Building Regulations and other measures for securing the public safety ..	4,07,659	62,996	3,44,663	3,44,663	
XIII	Gardens and Open Spaces	1,99,028	..	1,99,028	1,99,028	
XIV	Markets and Slaughterhouses	5,45,167	35,398	5,13,169	5,13,169	
XV	Contribution to the City Improvement Trust	22,55,000	..	22,55,000	22,55,000	
XVI	Contribution to Provident Fund by the Municipal Corporation	1,50,000	..	1,50,000	1,50,000	
XVII	Retrenchment Enquiry	..	..	30,000	30,000	
		3,26,66,015	11,22,886	3,19,64,509	3,19,95,083	

TABLE VII (C)

SUMMARY OF RETRENCHMENTS AND BUDGET ESTIMATES BY DEPARTMENTS.

(See Chapter VIII Para 52).

	Departments.	Commissioner's tentative Budget 1925-26	Retrenchments recommended by Retrenchment Adviser.	Budget as approved by the Corporation.
1	Secretarial Office	1,53,999	..	1,53,999
2	Municipal Commissioner's Office	2,08,626	..	2,19,126
3	Audit and Accounts	2,23,721	..	2,23,721
4	General Stores	86,118	..	86,118
5	Assessment and Collection ..	4,73,113	..	4,73,113
6	Licensing	57,875	..	57,875
7	Town Duty Refund	1,30,588	..	1,30,588
8	Executive Engineer	6,37,403	75,638	5,61,765
9	do. Roads	31,84,966	3,58,324	28,26,642
10	do. Drainage	7,13,820	25,220	6,88,600
11	Mechanical	7,87,950	83,194	7,04,756
12	Water Works	11,25,348	53,464	10,66,934
13	Public Health General ..	12,37,510	1,11,594	11,57,390
14	Conservancy	41,74,355	3,56,612	38,17,743
15	Hospitals	2,10,863	23,442	1,87,421.
16	Schools Committee	26,02,652	..	26,02,652
17	Fire Brigade	4,08,574	..	4,08,574
18	Markets and Slaughter houses..	5,45,167	35,398	5,13,169
19	Gardens	1,79,028	..	1,79,028
20	Museum	24,140	..	24,140
	Total of Departments	1,71,65,816	11,22,886	1,60,83,354
	Town Duty Collection	1,19,200	..	1,19,200
	Debt charges	1,20,41,599	..	1,20,41,599
	Statutory contributions to Government M. Institutions..	4,14,500	..	4,14,500
	Grants in aid to Public Medical Institutions ..	73,400	..	73,400
	,, Aided Institutions Primary Education ..	16,400	..	16,400
	,, do. Secondary Education	74,700	..	81,700
	King Edward Memorial Hospital	..	..	2,43,230
	Gordbandas S. M. College ..	..	..	1,22,200
	Contribution to C. I. Trust ..	22,55,000	..	22,55,000
	Contribution to Provident Fund	1,50,000	..	1,50,000
	Govt. Medical Retrenchment Enquiry	..	..	30,000
	Miscellaneous charges	3,55,400	..	3,55,400
	Election expenses	..	..	10,000
		3,26,66,015	11,22,886	3,19,95,983

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